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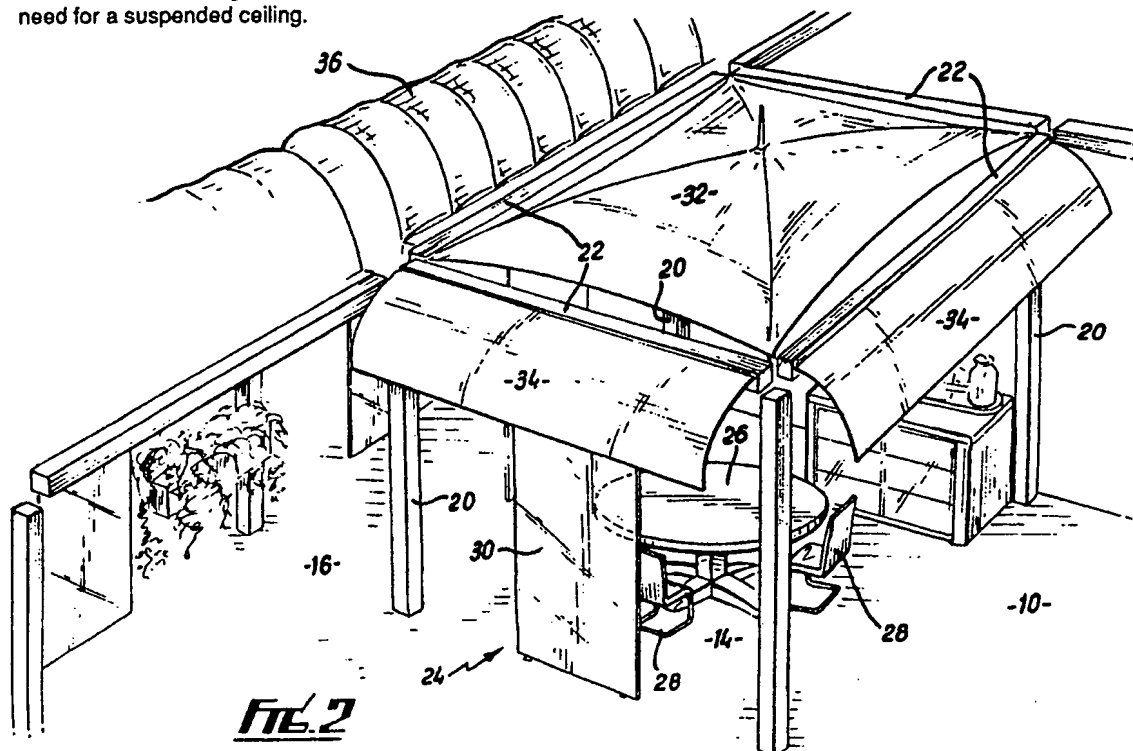
None

(58) Field of search

**UK CL (Edition J) E1D DF142 DLCKM
INT CL⁴ E04B**

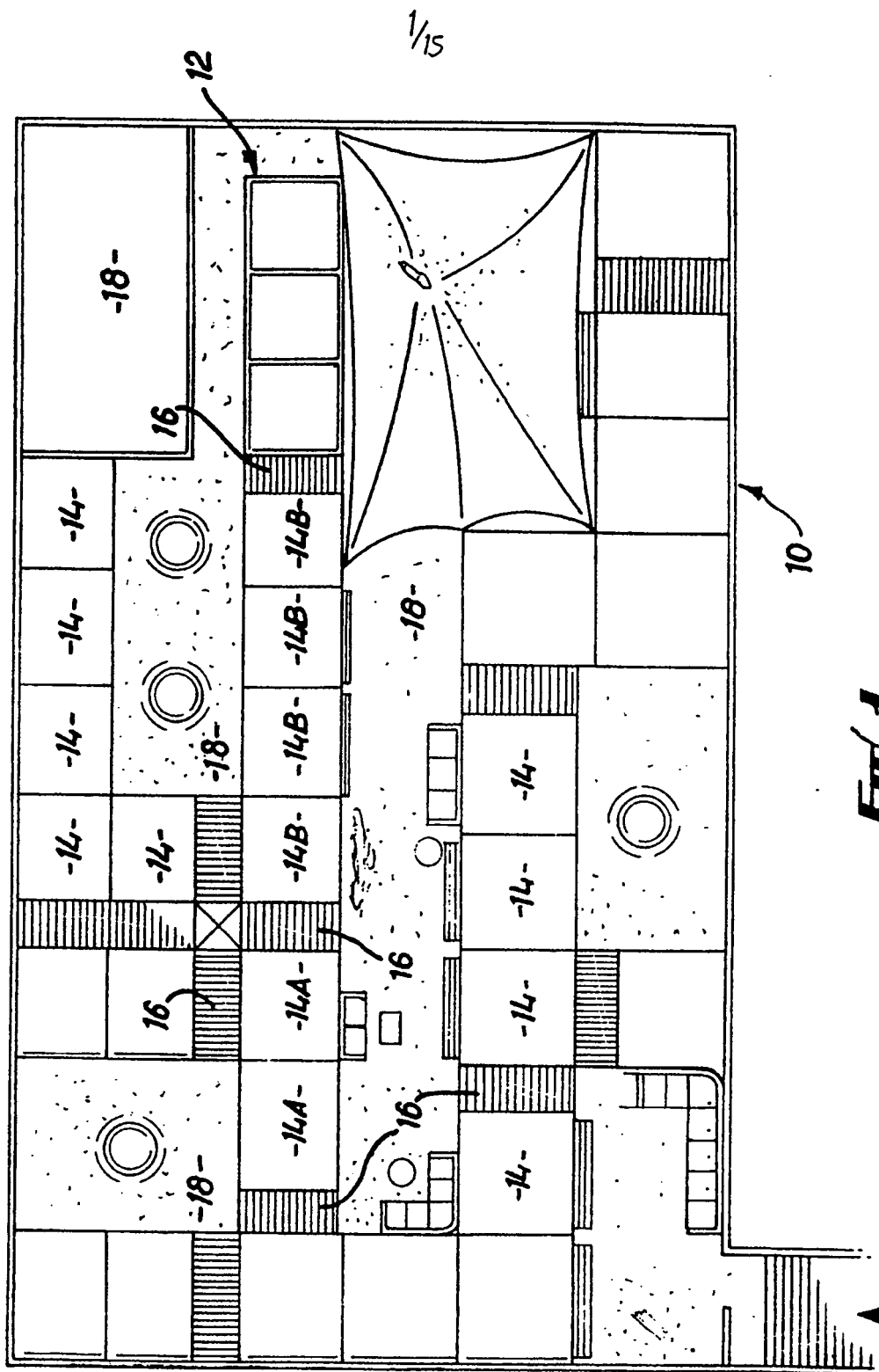
(54) **Space divider system, e.g. for offices**

(57) A space divider system is used for dividing a floor space by means of selectably placeable partition panels 30 stabilised by a modular support system. The support system substantially comprises beam members 22 and post members 20 which are preferably of mutually uniform length and cross-section and include longitudinal cavities for housing service distribution means, e.g. electrical or telephone cables. Overhead canopies 32, 36 may be fitted to beams 22 obviating the need for a suspended ceiling.



At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.

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FILE 1

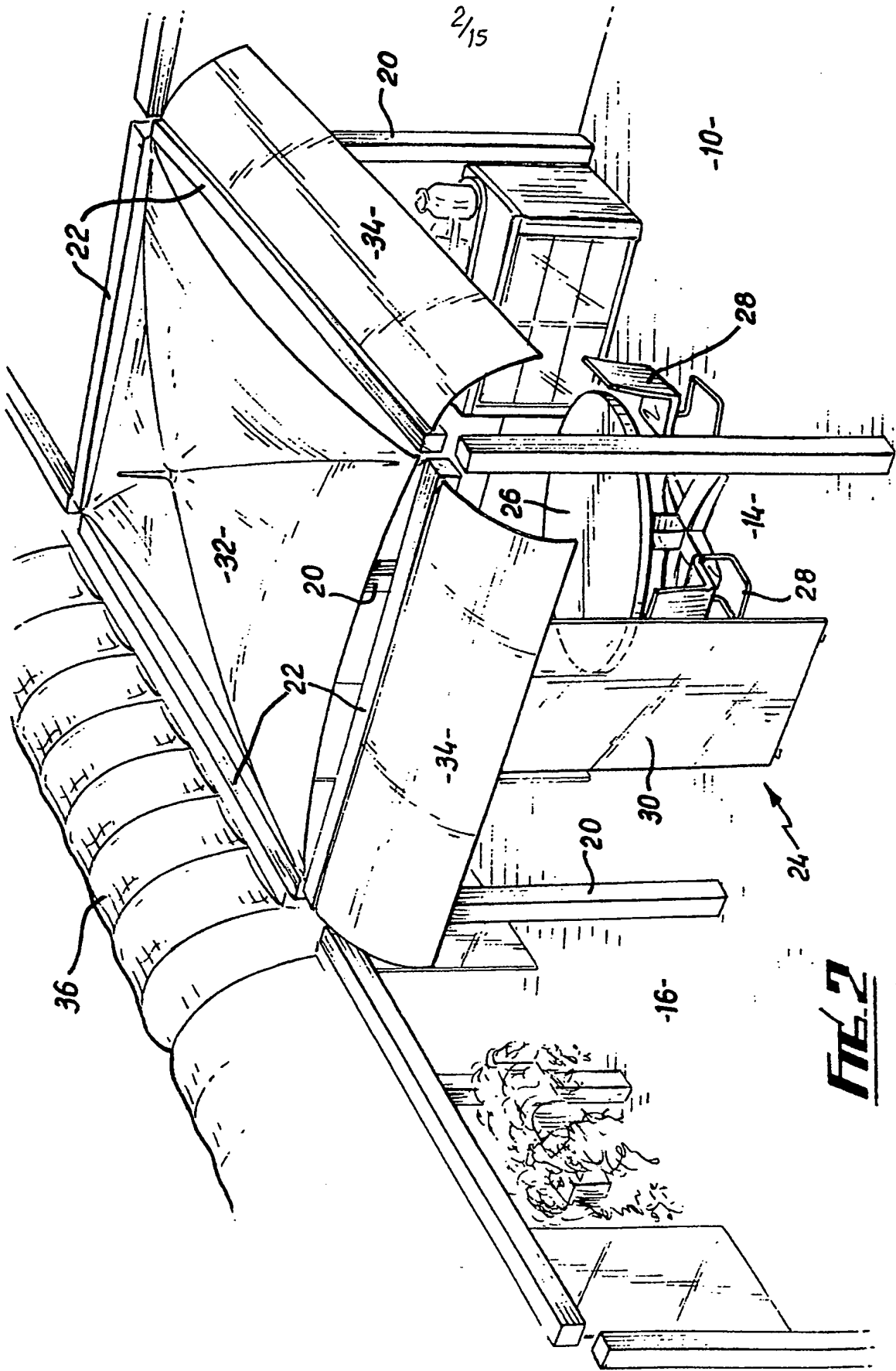


FIG. 2

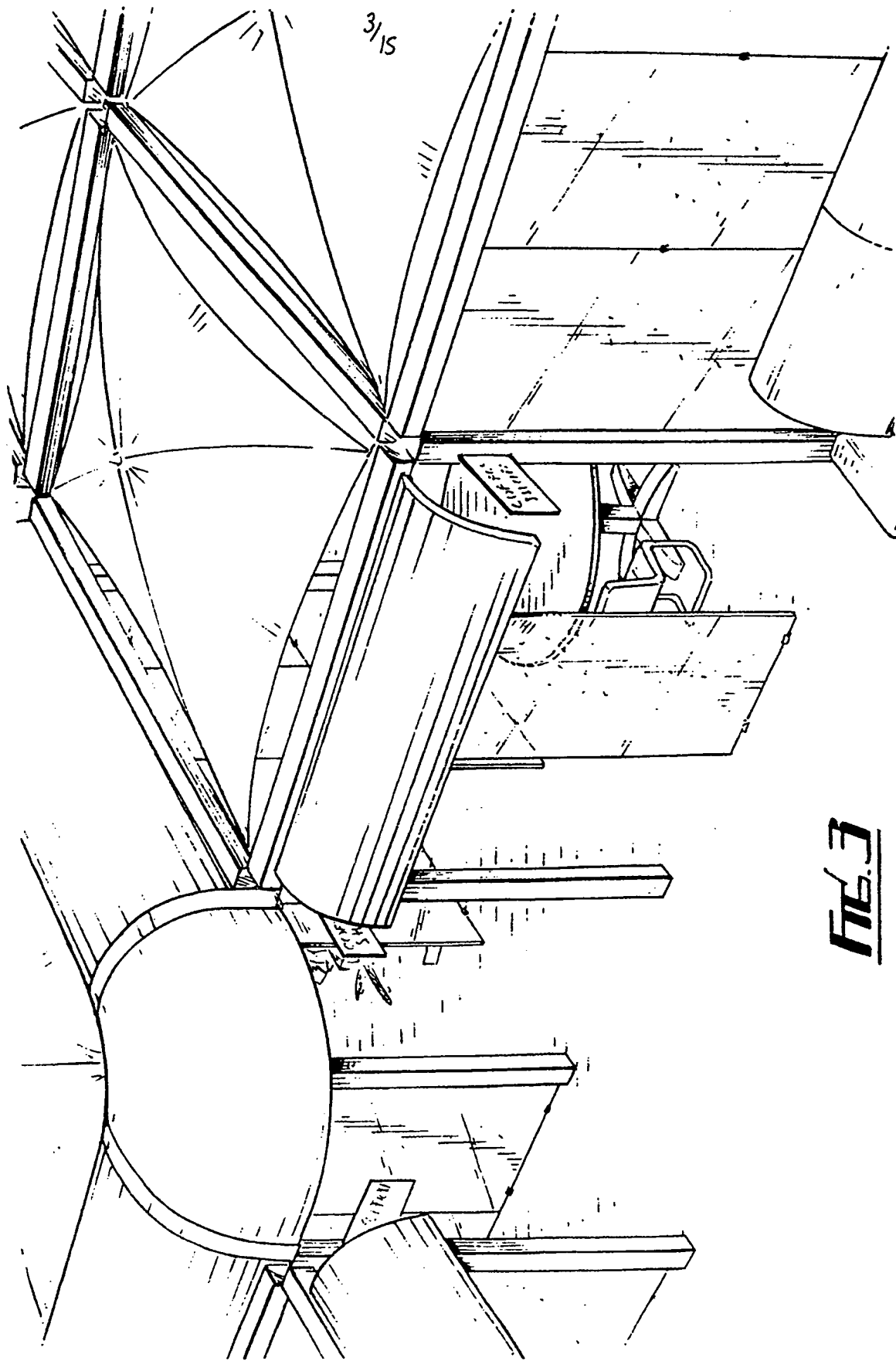
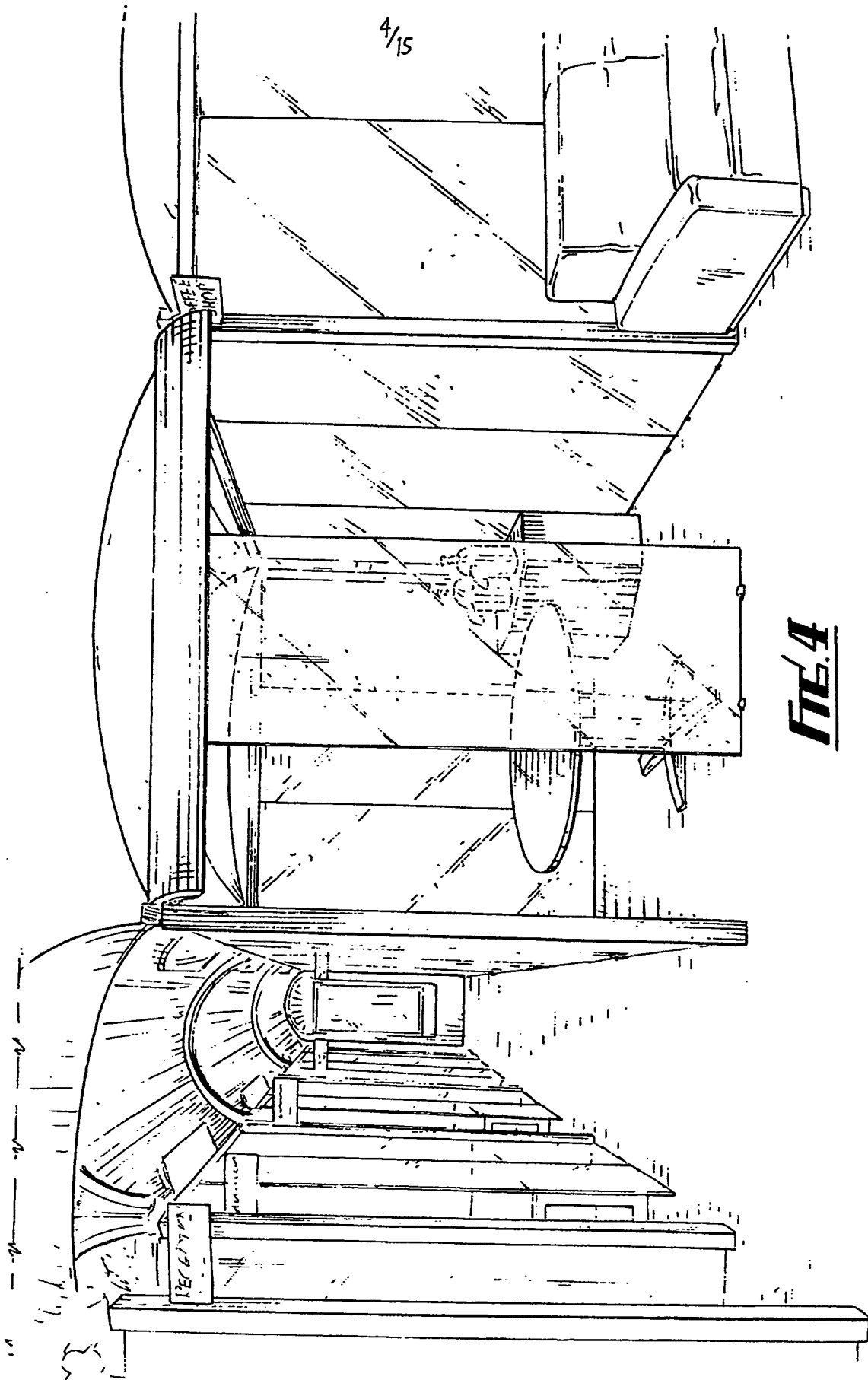


Fig 3



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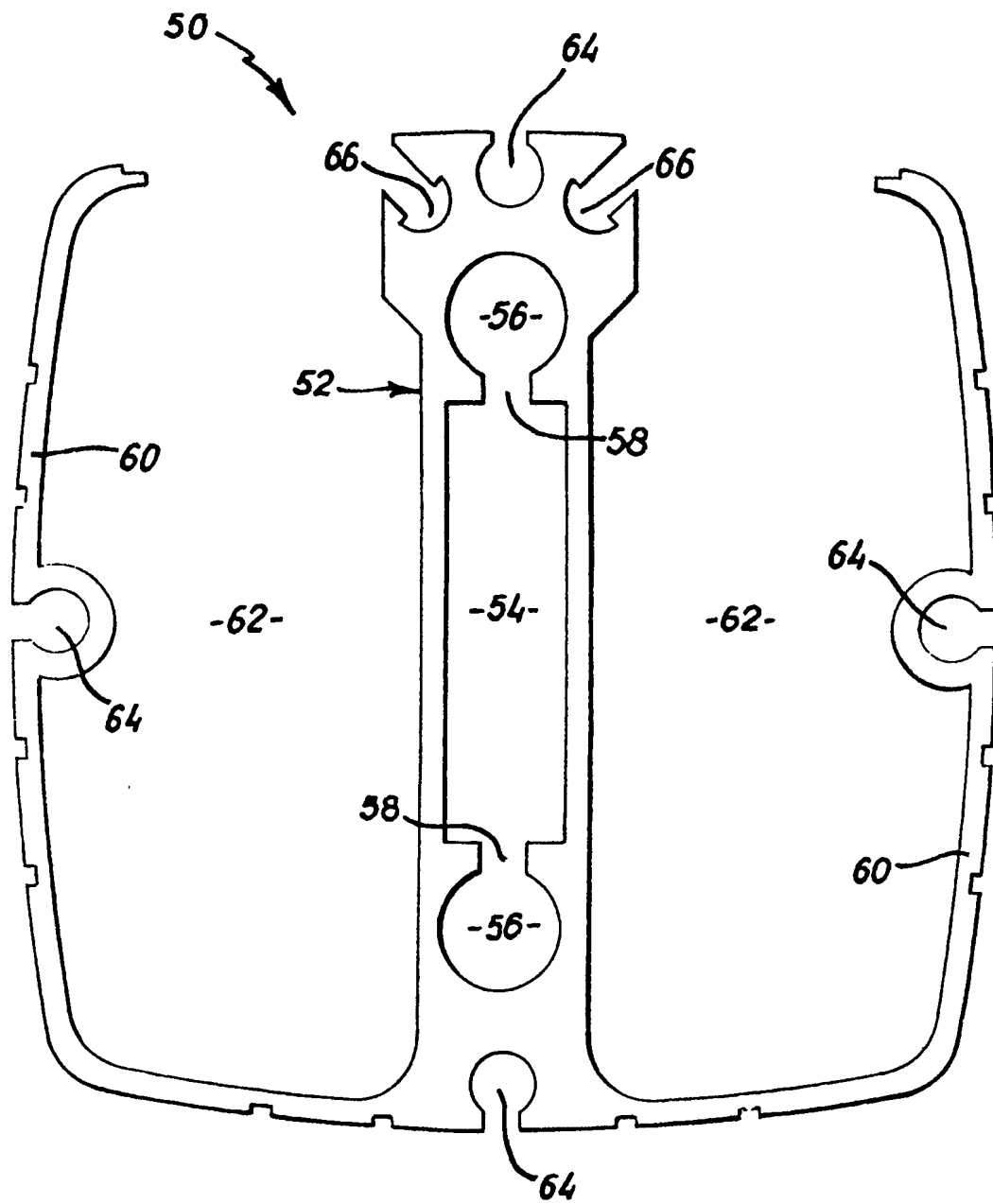


FIG. 5

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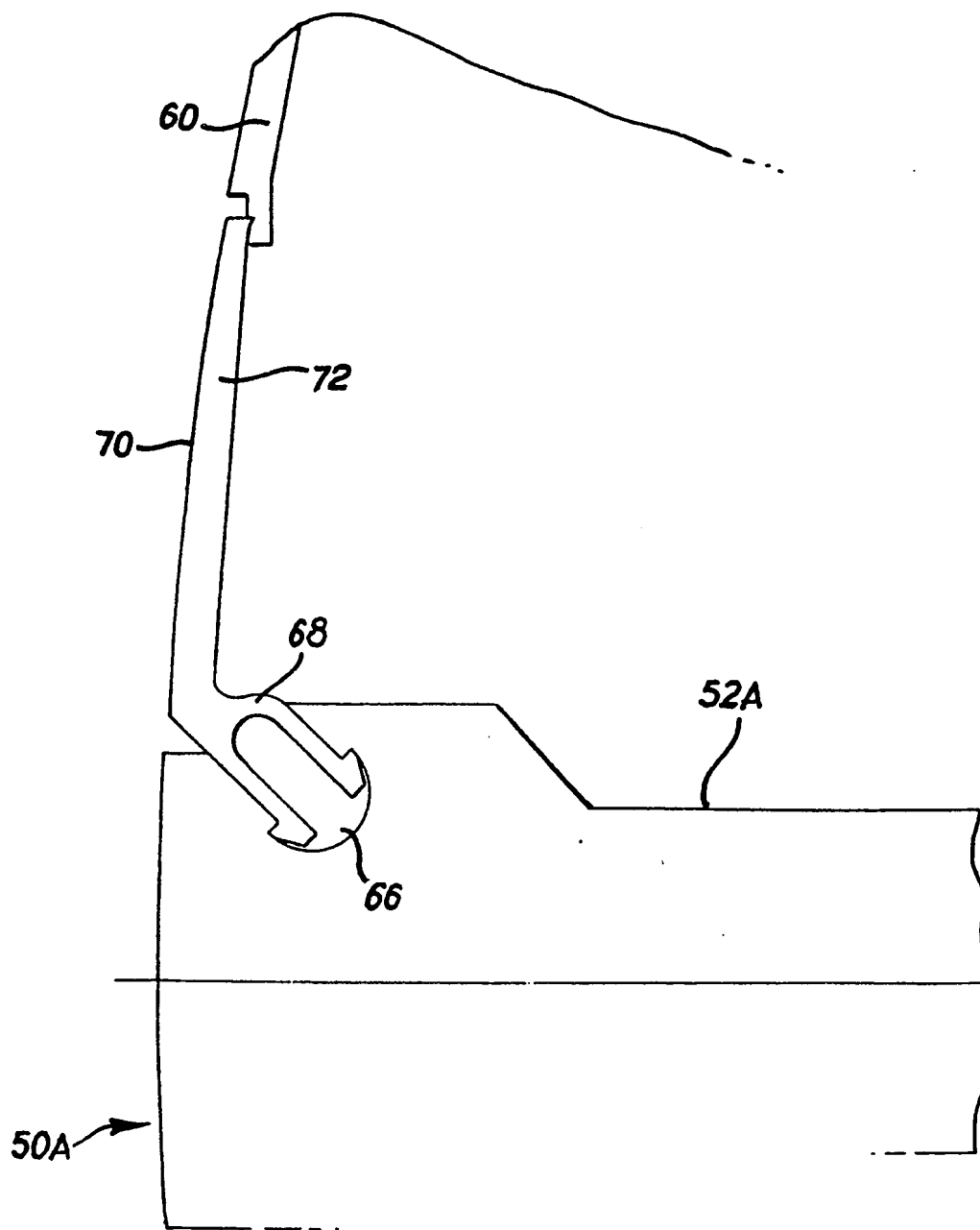


FIG. 6

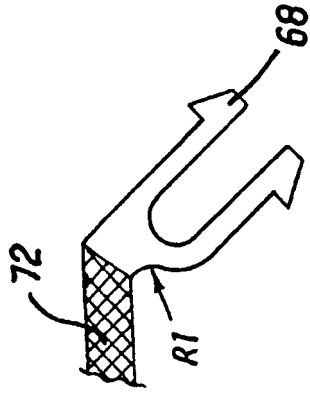
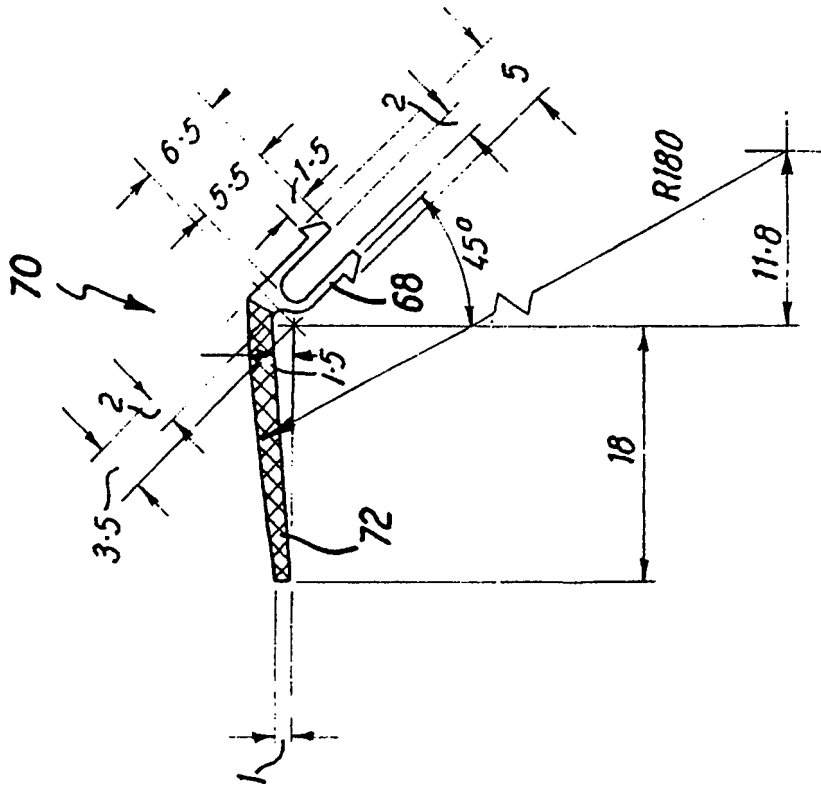


Fig. 8

1. Mat'l. to be rigid P.V.C. black finish except where specified otherwise.
2. Mat'l. to be soft P.V.C. black finish of shore A60 where shown-XXXXX
3. Extrusion length to be 2400.

Fig. 7

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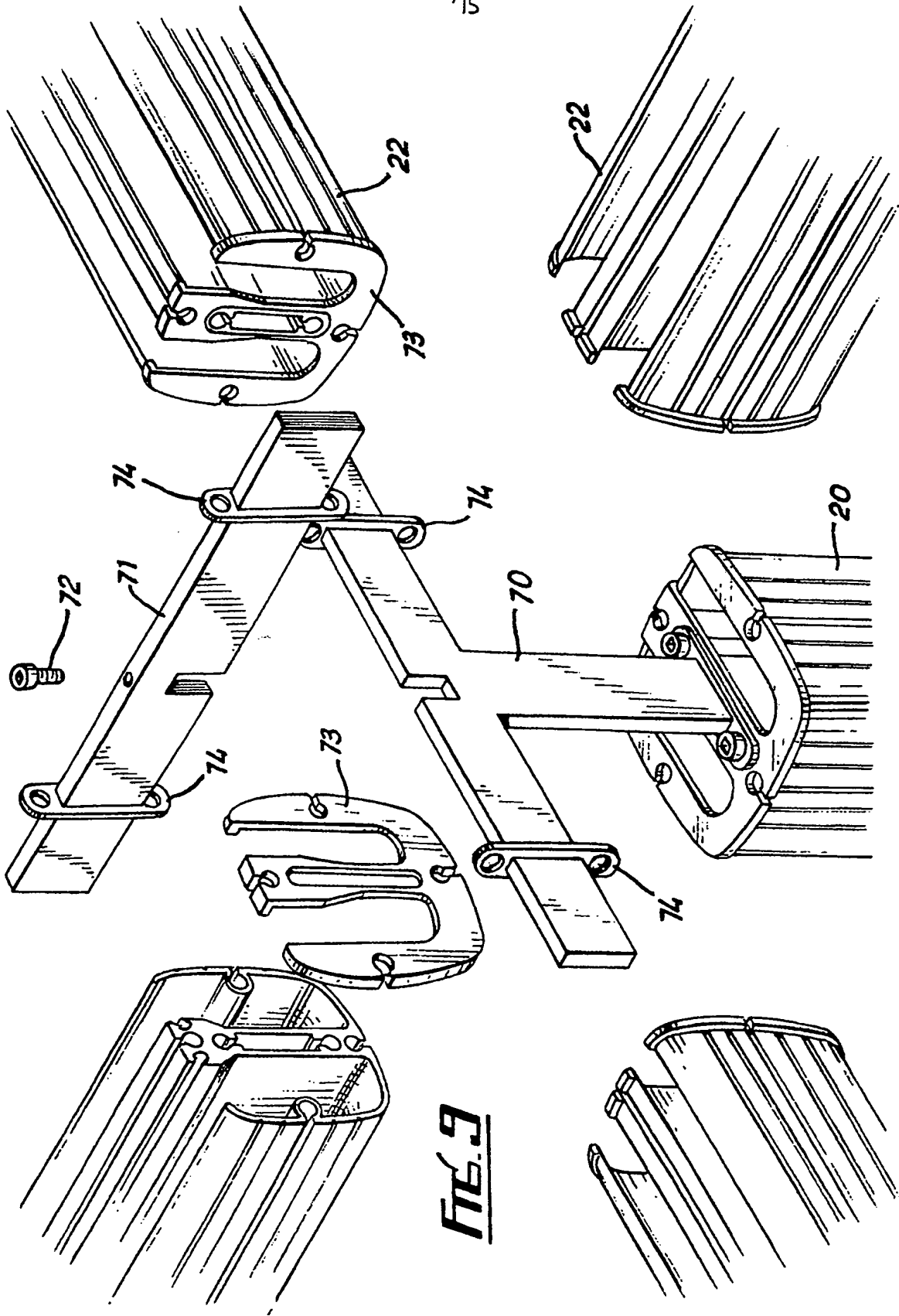


FIG. 9

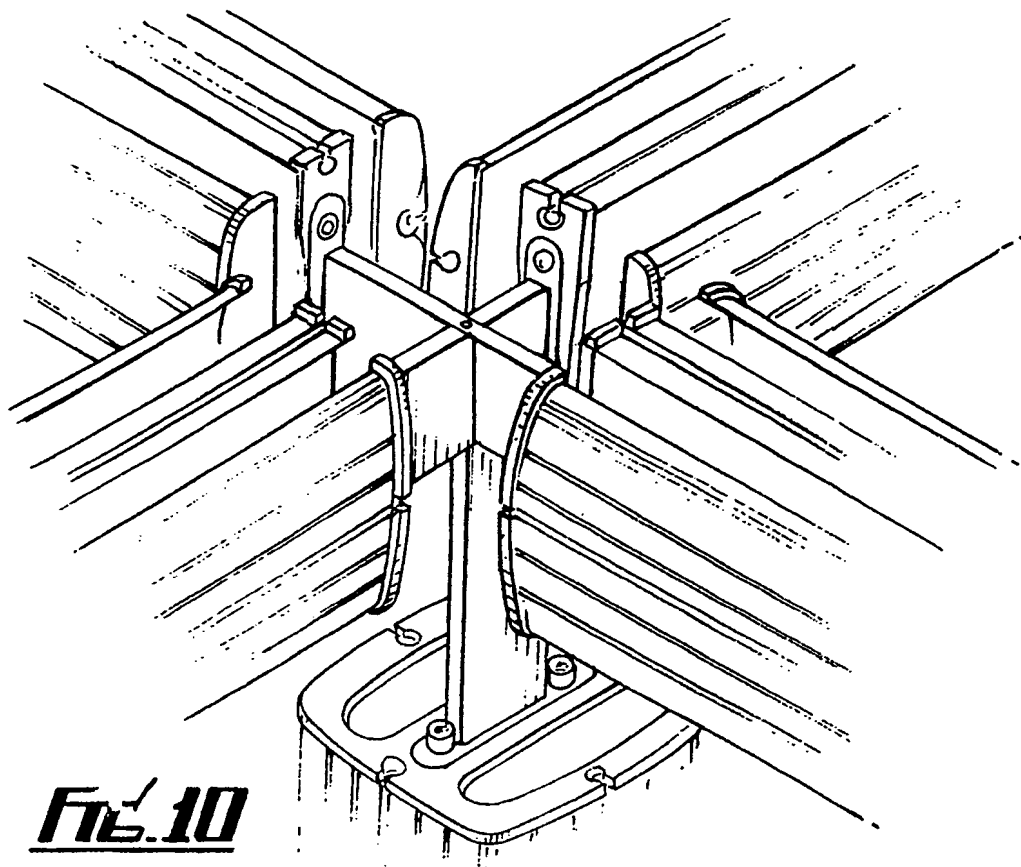


FIG. 10

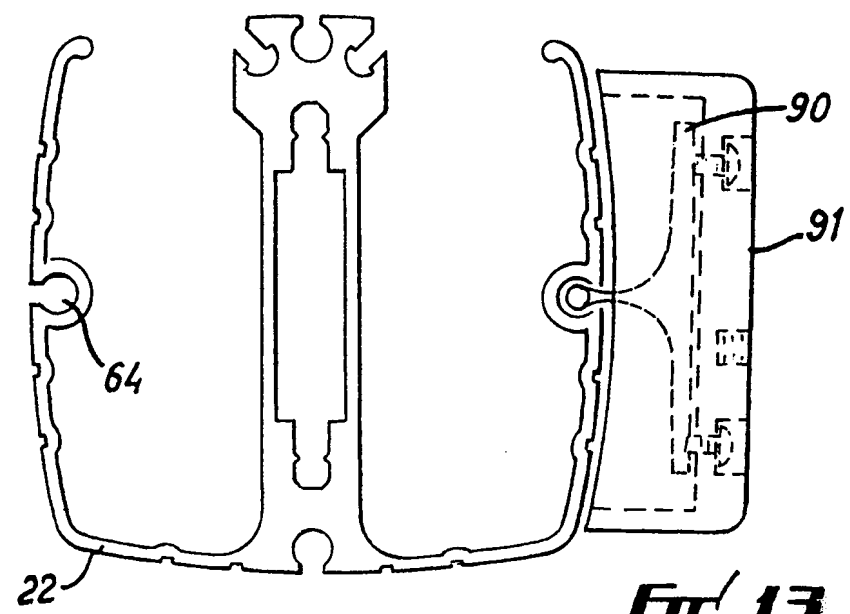


FIG. 13

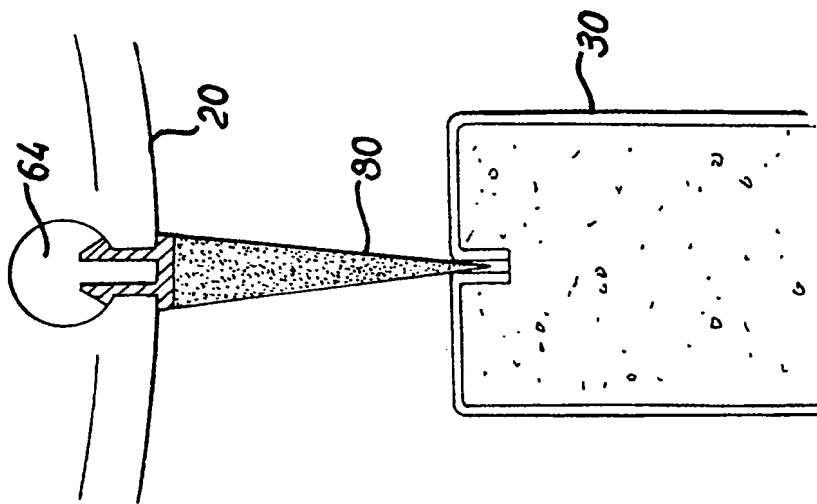


FIG. 11a

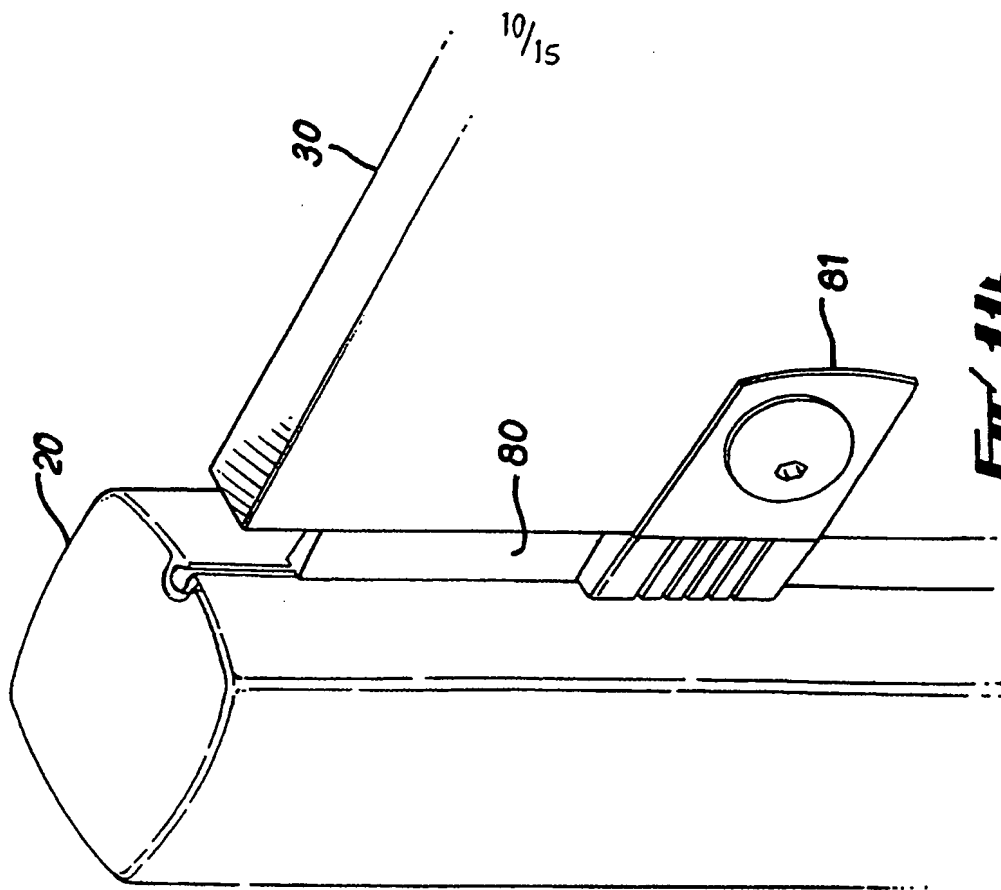


FIG. 11b

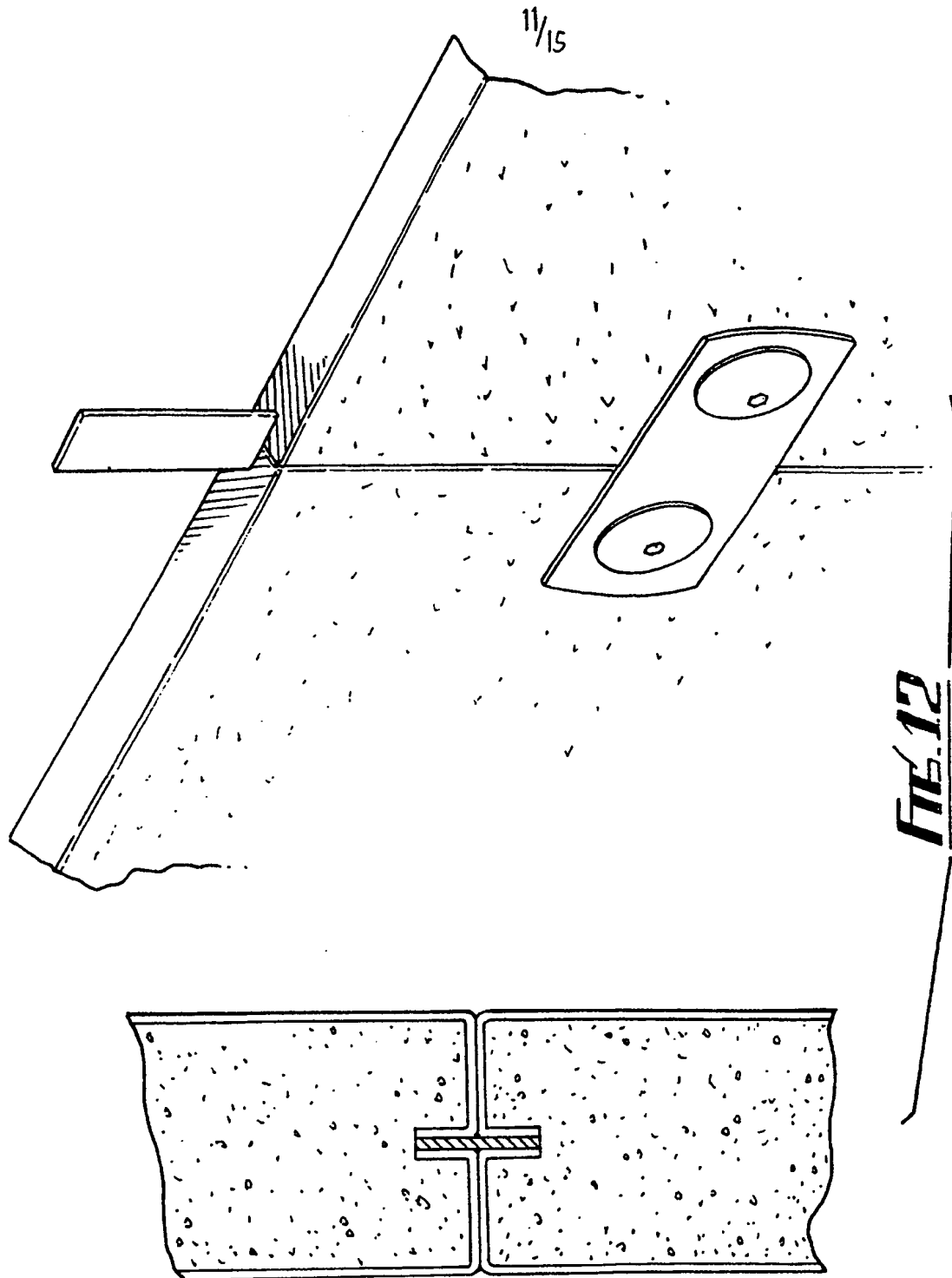


FIG. 12

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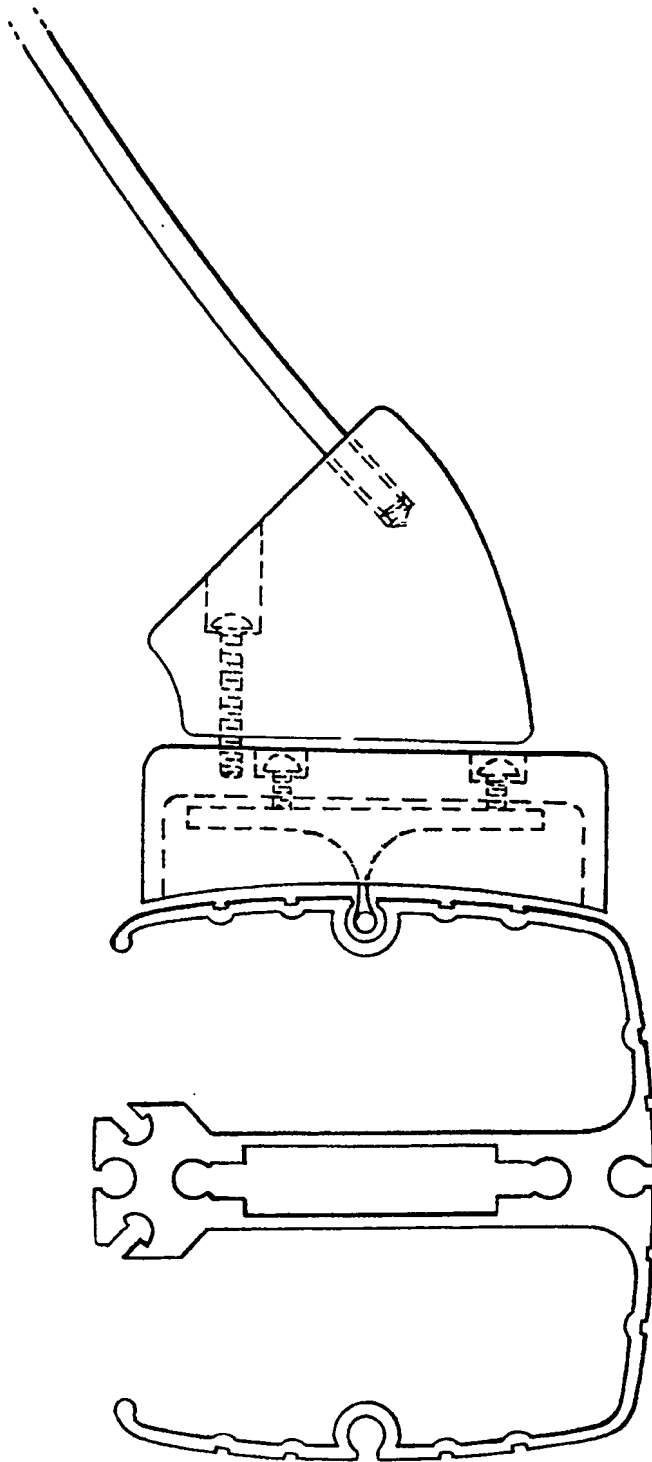
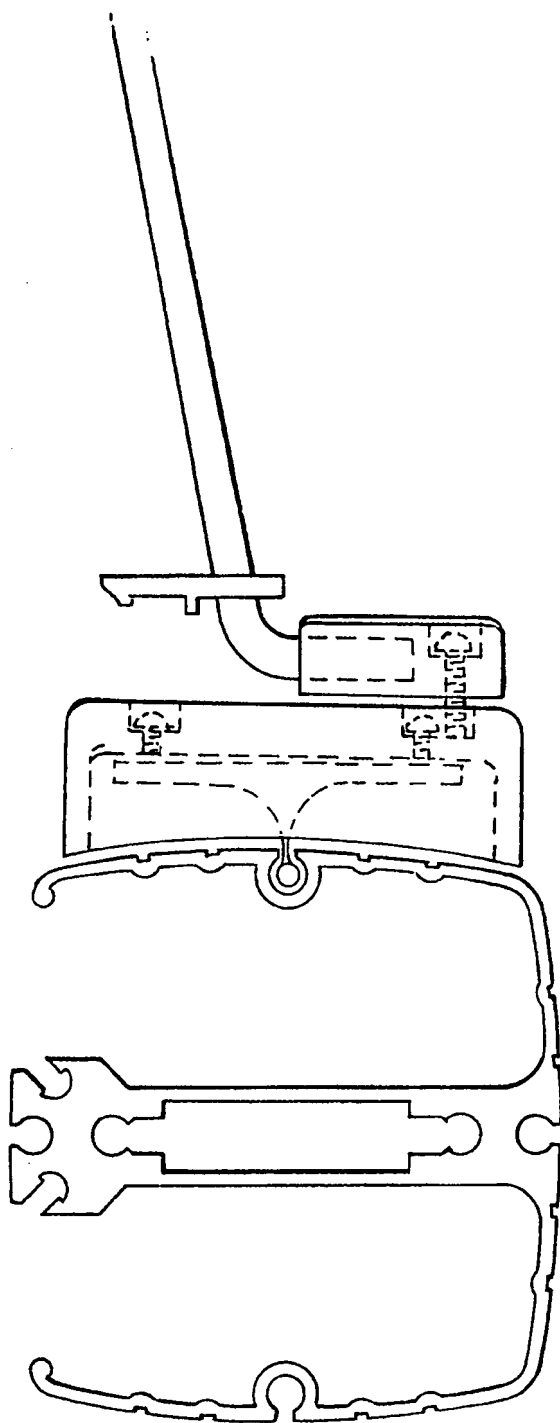


Fig. 14

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176.15

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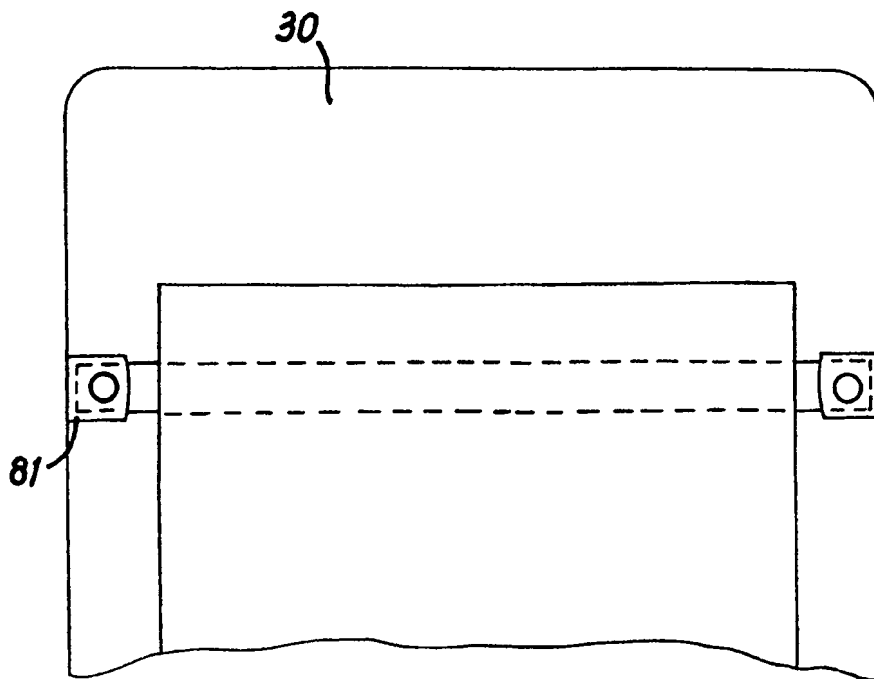


FIG. 16

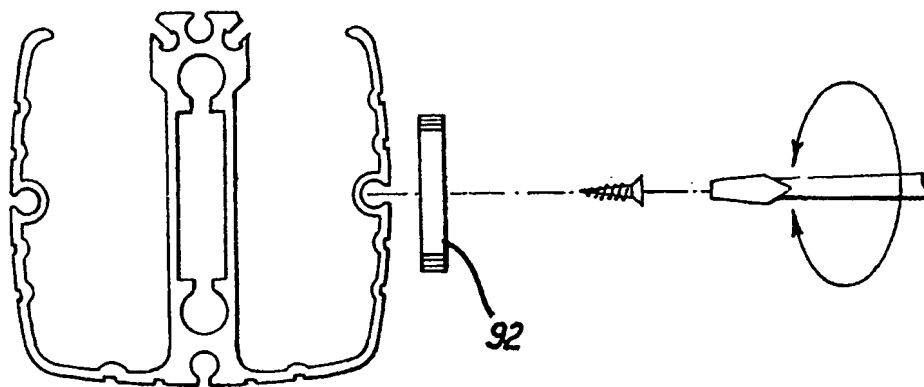
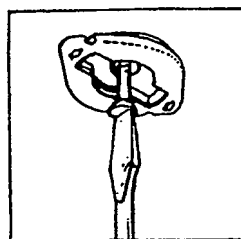


FIG. 17



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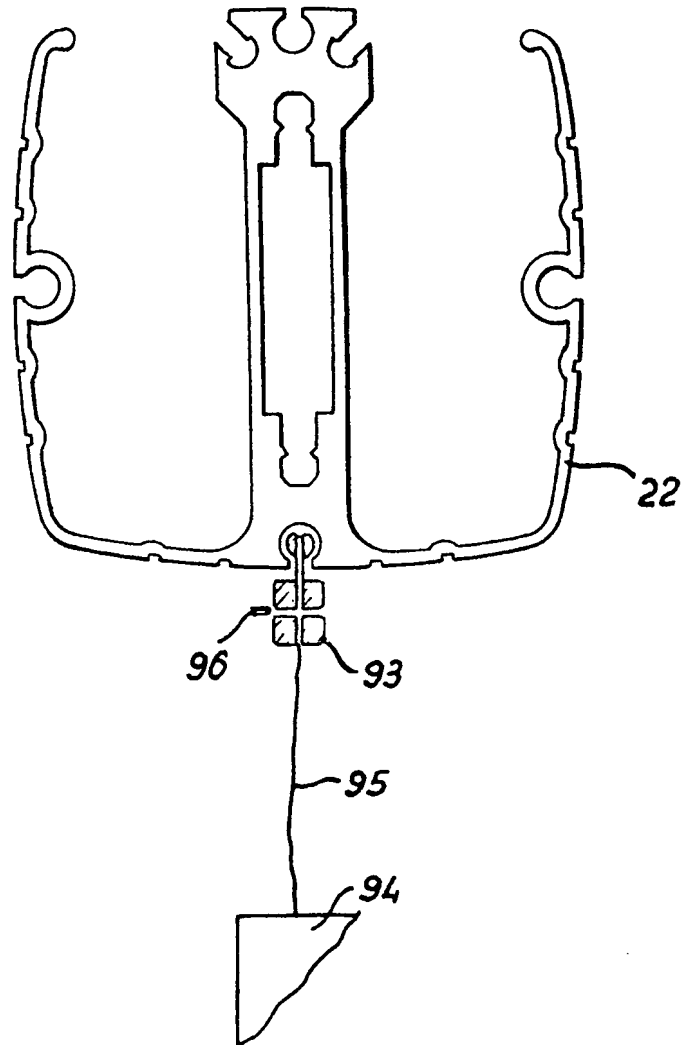


FIG. 18

1 "Space Divider System"

2

3 This invention relates to a space divider system, and
4 relates more particularly but not exclusively to a
5 system for dividing a floor space by means of
6 selectably placeable partition panels stabilised by a
7 modular support system based on a minimal kit of parts
8 therefor.

9

10 It is increasingly the practice for business premises
11 to be constructed initially as an open single-level
12 floor bounded by the external walls of the building,
13 the openness of the floor being interrupted at most by
14 a service core. Such open-floor buildings are then
15 sub-divided by tenants erecting internal walls, or by
16 placing floor-standing screens (so-called "open plan"
17 offices), or by a mixture of such techniques.

18

19 Sub-division of office floor space by internal walls
20 usually requires architectural services in planning and
21 the use of skilled craftsmen for the time-consuming
22 erection of the internal walls, together with the
23 provision of distributed services (power, lighting, and
24 telecommunications); such sub-division of office floor
25 space is therefore relatively expensive.

1 Sub-division of office floor space on the "open plan"
2 principle is somewhat cheaper in material cost for
3 screens as compared to fixed walls, but still requires
4 detailed planning. Typical open plan floor-standing
5 screens do not readily provide for the necessary
6 distribution of services to all areas of the office.
7 Distribution of services through a hollow floor system
8 (sometimes termed "computer floors") is expensive in
9 first cost, and will necessarily make the building more
10 expensive.

11
12 It is therefore an object of the invention to provide a
13 space divider system which enables an area of solid
14 floor to be selectively divided on a modular basis by
15 means of selectively placeable floor-standing partition
16 panels stabilised by a modular support system based on
17 a minimal kit of parts therefor and providing a
18 relatively simple means of service distribution
19 throughout the floor area, the space divider system
20 giving maximum flexibility in selection of partition
21 panel placement in the first instance and for any
22 subsequent re-arrangement of panels, without requiring
23 the modular support system to be especially arranged or
24 re-arranged to suit the first placement or
25 re-arrangement of partition panels.

26
27 According to a first aspect of the present invention
28 there is provided a space divider system for modularly
29 dividing an area of floor by means of selectively
30 placeable floor-standing partition panels stabilised by
31 a modular support system, said floor area being
32 reticulated by a notional grid thereon, said support
33 system comprising a plurality of substantially vertical
34 posts individually standing on lineally adjacent nodes
35 of said notional grid, each said post having a height

1 greater than the height of a person standing on said
2 floor, said support system further comprising a
3 plurality of beams, each said beam being supported at
4 each end thereof on the respective upper ends of a
5 lineally adjacent pair of said posts, each said beam
6 having a length substantially equal to the respective
7 internodal dimension of the notional grid which that
8 beam overlies, whereby the combination of said posts
9 standing on the corners of a given area unit of said
10 notional grid together with said beams supported
11 thereby constitute a basic module of said space divider
12 system, said posts and said beams each comprising
13 service distributing means for distributing services
14 throughout said floor area at least as far as the nodes
15 of said notional grid, said posts and said beams
16 further comprising partition panel stabilising means
17 for stabilising a plurality of substantially planar
18 floor-standing partition panels standing in
19 substantially vertical positions on predetermined parts
20 of said notional grid.

21
22 According to a second aspect of the present invention
23 there is provided a space divider system for modularly
24 dividing an area of solid floor by means of selectively
25 placeable floor-standing partition panels stabilised by
26 a modular support system, said floor area being
27 reticulated by a notional rectangular grid thereon,
28 said notional grid having substantially uniform
29 rectilinear internodal dimensions in respective ones of
30 two mutually substantially normal horizontal
31 directions, said support system comprising a plurality
32 of substantially vertical posts individually standing
33 on rectilineally adjacent nodes of said notional grid,
34 each said post having a substantially uniform height
35 greater than the height of a person standing on said

1 floor, said support system further comprising a
2 plurality of substantially horizontal beams, each said
3 beam being supported at each end thereof on the
4 respective upper ends of a rectilineally adjacent pair
5 of said posts, each said beam having a length
6 substantially equal to the respective internodal
7 dimension of the notional grid which that beam
8 overlies, whereby the combination of four said posts
9 standing on the four corners of a given rectangle of
10 said notional grid together with four said beams
11 supported thereby constitute a basic module of said
12 space divider system, said posts and said beams each
13 comprising service distributing means for distributing
14 services throughout said floor area at least as far as
15 the nodes of said notional grid, said posts and said
16 beams further comprising partition panel stabilising
17 means for stabilising a plurality of substantially
18 planar floor-standing partition panels standing in
19 substantially vertical positions on predetermined parts
20 of said notional grid.

21
22 Said rectilinear internodal dimensions are preferably
23 substantially equal in each of said two mutually
24 substantially normal horizontal directions whereby said
25 notional grid is a substantially square grid.

26
27 Said uniform height of said posts is preferably
28 substantially equal to said rectilinear internodal
29 dimension of said notional square grid whereby said
30 basic module is essentially cubic.

31
32 Said notional grid may have a said post standing on
33 each node thereof whereby the totality of said floor
34 area is divided into basic modules. Alternatively,
35 posts may be omitted from one or more selected nodes of

1 said notional grid such that said floor area is divided
2 in such places into modular multiples (for example, 2
3 rectangles (or squares) by 1 rectangle (or square), 3
4 rectangles (or squares) by 1 rectangle (or square), 2
5 rectangles (or squares) by 2 rectangles (or squares),
6 etc), with the beam or beams otherwise overlying such
7 places preferably being omitted to allow for the
8 absence of the supporting post or posts at said one or
9 more selected nodes.

10

11 The totality of said floor may be reticulated by a
12 single said notional rectangular or square grid thereon
13 whereby the total area of said floor may be divided
14 into said basic modules. Alternatively, the totality
15 of said floor may be reticulated by a plurality of such
16 notional rectangular or square grids thereon with each
17 said grid having substantially identical rectilinear
18 internodal dimensions in respective ones of said two
19 mutually substantially normal horizontal directions,
20 and with adjacent grids being separated by strips of a
21 width less than the respective said internodal
22 dimension (for example, of a width about half of the
23 respective said internodal dimension) whereby said
24 basic modules can form occupiable room areas in the
25 divided floor while said lesser-width strip or strips
26 can form a traversable passageway or passageways
27 between said occupiable room areas in the divided
28 floor. Said lesser-width strips may optionally be
29 traversed by beams of appropriately lesser length than
30 the beams defining said basic modules, or beams may be
31 omitted over said lesser-width strip(s).

32

33 Said service distributing means comprised in said posts
34 and in said beams is preferably constituted by integral
35 trunking. Said posts and said beams are preferably

1 each hollow with one or more end-to-end longitudinal
2 cavities therein serving as said integral trunking.
3 The or each said cavity in a post or beam is preferably
4 externally accessible at any point therealong through
5 one or more flexible lips normally closing the
6 respective longitudinal cavity to serve as cover and
7 retainer but deformable to allow the entry or exit at a
8 selected point of one or more cables or other service
9 carriers. Thereby integral trunking in the beams
10 allows cables or other service carriers to be
11 distributed over the floor area above head-height in a
12 controlled manner in predetermined cable runs while
13 keeping them largely out of sight, the cables leaving
14 the beam trunking over a selected point to drop down
15 directly to a desired location, or alternatively, the
16 cables being carried vertically down inside the
17 trunking of the post nearest the selected point to
18 leave the post trunking at an appropriate height, for
19 example at desk height or at floor level. Throughout
20 such service distributing means, the trunking closures
21 serve as protective covers and positive retainers for
22 the cables or other service carriers or conduits
23 carried within the trunking. The distributed services
24 may include telecommunications and electrical power.

25
26 An outlet unit may be provided for attachment to a
27 selected post of the space divider system to provide a
28 selectively placeable local termination for cables or
29 other service carriers distributed over the modularly
30 divided floor area by the service distributing means
31 comprised in the posts and beams, and a local outlet
32 for services carried thereby. The outlet unit is
33 preferably vertically movable on the selected post
34 without detachment of the cable or cables terminated
35 thereby, said cable(s) having an appropriate

1 flexibility and length to permit such vertical
2 movement. The outlet unit may comprise one or more
3 sockets for telecommunications and/or electrical power,
4 and the outlet unit may additionally comprise one or
5 more appropriate devices such as isolating switches,
6 fuses, circuit breakers, or other protective devices
7 whose provision is desirable or mandatory.

8
9 Lighting units and control switches therefor may be
10 mounted on or suspended from said beams and/or on said
11 posts, with the requisite cabling being carried in said
12 integral trunking. Thus the space divider system of
13 the invention provides flexible and economic
14 distribution of this essential office service, and
15 moreover in a manner allowing simple modification and
16 re-arrangement of a lighting layout after its first
17 installation, so obviating the need usual in prior-art
18 systems for rigid pre-planning and contingency
19 provision.

20
21 Said posts and said beams preferably have mutually
22 identical cross-sections, and are conveniently formed
23 as cross-sectionally uniform elongate extrusions of an
24 appropriate polymeric material. When provided, the or
25 each said flexible lip may be formed integrally with
26 the extrusion forming the posts and beams (for example,
27 as a co-extrusion), or the flexible lips may be formed
28 as a separate extrusion, cut to requisite length, and
29 secured to the post/beam extrusion, for example by
30 means of integral fastener means formed thereon in the
31 extrusion process. When extruded with an integral
32 fastener means, the flexible lip is preferably formed
33 as a co-extrusion wherein the lip portion is made
34 relatively soft and flexible (for example by the
35 localised incorporation of a relatively higher

1 proportion of plasticiser), and the fastener means
2 integral therewith is made relatively hard and
3 inflexible (for example by the localised incorporation
4 of a relatively low proportion of plasticiser,
5 localised elimination of plasticiser, or the localised
6 application of irradiation curing/cross-linking).

7
8 Thus the posts and beams can conveniently be provided
9 in respective uniform lengths of polymeric extrusion,
10 or in the preferred case of mutually equal length posts
11 and beams, as a uniform length of extrusion, thus
12 simplifying the provision of parts for the support
13 system by reducing the number of different parts
14 therefor.

15
16 The preferred mutually identical cross-sections of the
17 posts and beams preferably incorporates a resilient
18 central slot forming a socket for a plug-type coupling
19 means for mutually attaching post tops and adjacent
20 beam ends. The plug-type coupling means is preferably
21 provided in a number of forms each appropriate to the
22 number of beam ends (from one to four) to be attached
23 to and supported by a given single post top. Thus the
24 plug-type coupling means (with respect to its attitude
25 when installed) preferably comprises a single
26 vertically depending plug member at the upper end of
27 which there are from one to four horizontally extending
28 plug members mutually aligned at 90° or 180° as
29 appropriate to the local number and arrangement of
30 beams to be supported by the post into the upper end of
31 which said vertically depending plug member is plugged
32 for attachment to the respective post. Said plug
33 members may have a substantially rectangular
34 cross-section dimensioned to fit an appropriately
35 rectangular cross-section of said central slot

1 incorporated in the cross-section of the posts and
2 beams, and to be either an interference fit therein or
3 a marginal clearance fit therein. Said plug members
4 are preferably each provided with a hilt or flange to
5 limit and define the insertion of the respective plug
6 member into the respective post/beam socket. Each said
7 hilt or flange is preferably provided with one or more
8 screw-passing holes through which an appropriate number
9 of screw-threaded fasteners may extend to be
10 screw-threadedly secured in the respective post or
11 beam, conveniently into a respective internally
12 circular channel formed in the extrusion cross-section
13 of the posts and beams. Said extrusion cross-section
14 may have two said internally circular channels each
15 linked by a respective slit to the central
16 plug-member-receiving slot to provide or enhance the
17 resilience thereof.

18
19 Said partition panel stabilising means comprised in
20 said space divider system preferably comprises
21 partition panel clamping means for peripherally
22 clamping one or more floor-standing partition panels
23 placed on a predetermined part of said notional grid to
24 stand substantially co-planar with the combination of a
25 given beam and the adjacent pair of posts respectively
26 supporting either end of said beam. Said partition
27 panel clamping means preferably comprises a plurality
28 of brackets each insertable into and preferably also
29 slidable along at least one re-entrant slot or channel
30 formed in the exterior of each post and beam, each said
31 bracket being constructed or adapted to be secured to a
32 respective portion of the periphery of the partition
33 panel, preferably by means of a fastener passing
34 through a hole in the panel periphery. Each said
35 bracket may comprise two substantially identical

1 half-brackets each of stamped sheet metal with one edge
2 thereof flanged or otherwise formed for insertion into
3 and (in operative combination with the other
4 half-bracket) anchoring in the re-entrant slot or
5 channel in the exterior of each post and beam, another
6 edge of each half-bracket being cranked or otherwise
7 formed for engaging a respective side of the panel
8 periphery such that the operative combination of the
9 two half-brackets lie on each side of the partition
10 panel and may be secured thereto by a fastener passing
11 through a respective hole in each said half-bracket.
12 Portions of said half-brackets lying between a post or
13 a beam and the adjacent edge of a partition panel may
14 be encompassed by a detachable clip, preferably formed
15 as a unitary moulding of a resilient polymeric
16 material. When a given partition panel is of a width
17 and has a position such that one or both vertical edges
18 of said panel do not lie alongside a post, the panel
19 clamping means will not attach to that or these
20 vertical edges, but the partition panel will in such
21 circumstance have a vertical height substantially equal
22 to the height of the beam above the floor on which said
23 panel is standing whereby, at a minimum, the top edge
24 of such panel is clamped to the respective overlying
25 beam to be stabilised thereby. When a given partition
26 panel has a position such that at least one vertical
27 edge of said panel lies alongside a post, the panel
28 clamping means will attach at least to that vertical
29 edge, whether or not the panel is of a height to be
30 clamped to an overlying beam (if present) whereby, at a
31 minimum, at least one side edge of such panel is
32 clamped to the respective post to be stabilised
33 thereby. When panel edges are mutually adjacent
34 without there being an intervening post, such panel
35 edges may be mutually directly secured.

1 Whatever the height or width of the partition panel or
2 panels stabilised by the support system of the space
3 divider in accordance with the invention, the partition
4 panels are always floor-standing in a substantially
5 vertical plane such that substantially all of the
6 weight of such panels is carried on the underlying
7 floor, the partition panel stabilising means thereby
8 being substantially relieved of the dead weight of the
9 partition panel(s) and being required only to stabilise
10 the position of the or each panel against static and
11 dynamic side loads (eg as may be due to unbalanced
12 loading of articles supported by or leaning against a
13 panel, impacts, and air movements). The bottom edge of
14 each partition panel may rest directly on the
15 underlying floor, or one or more panel foot members may
16 be interposed between the bottom edge of a panel and
17 the underlying floor for vertically supporting the
18 respective panel. The or each such panel foot member
19 may be vertically adjustable to enable selective
20 variation of the height of the bottom edge of the panel
21 above the underlying floor. The upper part of a panel
22 foot member may be adapted to clamp the periphery of
23 the panel in a manner similar to the bracket of the
24 stabilising means, and the underside of the panel foot
25 member may be adapted to have a high resistance to
26 lateral movement of the floor surface, for example by
27 being of dentato-serrate or dentato-costate form. When
28 the modular support system mounts a suitable number of
29 suitably disposed partition panels, such panels will
30 tend to rigidify the support systems against lateral
31 distortion induced by static or dynamic side loads.

32
33 Insofar as said modular support system of the space
34 divider system in accordance with the invention may not
35 precisely fill a given floor space and thereby not abut

1 permanent walls of the building which bound said floor
2 space and/or may have insufficient stiffness imparted
3 to the modular support system by the panels supported
4 thereby, the support system may lack adequate
5 cross-bracing and be liable to skew under lateral
6 loading. To obviate this potential disadvantage, the
7 support system is preferably provided with beam-level
8 beam extensions at the tops of the posts which are
9 peripheral to said notional grid, said beam extensions
10 extending horizontally to abut adjacent permanent walls
11 or other rigid structures bounding the floor area
12 whereby laterally to brace said support structure at
13 the level of the beams thereof. Said beam extensions
14 are preferably formed by requisite lengths of the same
15 extrusion or other material forming the beams. Said
16 beam extensions may be coupled to the adjacent post
17 tops and beam ends by the same couplings as are used
18 mutually to couple post tops and adjacent beam ends
19 within the modular support system. The outboard ends
20 of said beam extensions are preferably individually
21 provided with adjustable jacking ends which are
22 individually adjustable to provide selectively variable
23 horizontal forces along the beam extensions whereby to
24 provide controllable lateral bracing of the support
25 structure. Said adjustable jacking ends are preferably
26 in the form of screw-adjustable face-pieces which may
27 be plug-fitted in the outboard ends of the beam
28 extensions in a manner similar to the attachment of
29 said couplings.

30
31 The lower ends of said posts may be fitted with feet
32 members which may be screw-adjustable and plug-fitted
33 in a manner similar to said adjustable jacking ends,
34 for adjustment of the respective height at which the
35 post-supported beam-end(s) is held above floor level

1 (thereby to enable compensation for variations in floor
2 level and/or in post height), said feet members
3 preferably being additionally or alternatively adapted
4 to have a high resistance to lateral movement on the
5 underlying floor surface, for example by having
6 undersides of similar dentato-serrate or
7 dentato-costate form to the undersides of the panel
8 foot members preferred for vertically supporting the
9 floor-standing partition panels (thereby to improve the
10 lateral stability of the support structure at floor
11 level).

12
13 Said space divider system preferably comprises canopy
14 support means for supporting one or more canopies at
15 the top of or above the or each module or multi-module
16 of the support system. The canopy or canopies provide
17 visual isolation between the top of the space divider
18 system and the permanent building roof above the floor
19 area, thereby obviating the need for the false ceiling
20 customarily installed for visual isolation of
21 ceiling-level services, etc (eg air ducts and the
22 like). The canopy or canopies preferably have at least
23 their undersurfaces of an optically bright material to
24 form a distributed diffuse down-reflector for upwardly
25 directed indirect lighting (conveniently mounted on the
26 beams of the support system). The material of the
27 canopy or canopies is conveniently a white or other
28 light-coloured fabric draped over canopy support means
29 in the form of wire hoops or stays preferably clipped
30 to the beams by having their ends located in the same
31 re-entrant slot(s) or channel(s) as are preferably
32 formed in the exterior of each beam (and post) for the
33 attachment of the aforementioned partition panel
34 clamping means in the form of brackets. (It is to be
35 noted that the last-mentioned multi-functionality is

1 indicative of the general flexibility in installation
2 and use of the space divider system of the invention).

3
4 According to a third aspect of the present invention
5 there is provided a kit of parts for assembling a space
6 divider system in accordance with the second aspect of
7 the invention, said kit of parts comprising a plurality
8 of posts each of mutually substantially uniform length,
9 a plurality of beams each of mutually substantially
10 uniform length substantially equal to the rectilineal
11 internodal dimension of the notional grid upon which
12 the assembled space divider system is to be based, said
13 posts and said beams each comprising service
14 distributing means, said kit of parts further
15 comprising coupling means for mutually securing post
16 tops and adjacent beam ends in the assembled space
17 divider system, and partition panel stabilising means.

18
19 The lengths of said posts and the lengths of said beams
20 in said kit of parts are preferably mutually
21 substantially equal, whereby posts and beams are
22 constituted by identical components in the kit of
23 parts.

24
25 Said kit of parts may further comprise a plurality of
26 substantially planar partition panels.

27
28 Said kit of parts may also include a plurality of any
29 one or more of the following components:-

- 30
31 a) panel foot members;
32 b) beam extensions, and optionally also
33 adjustable jacking ends therefor;
34 c) feet members for the posts, which feet members
35 may be adjustable;

- 1 d) canopy support means, and canopies for support
2 thereby;
3 e) service outlet units for mounting on the
4 posts, preferably in a vertically adjustable
5 manner, each service outlet unit preferably
6 comprising one or more sockets for
7 telecommunications and/or electrical power,
8 and optionally also isolating switches and/or
9 protective devices.

10

11 Embodiments of the invention will now be described by
12 way of example, with reference to the accompanying
13 drawings wherein:-

14

15 Fig. 1 is a schematic plan of a floor area divided
16 by a space divider system in accordance with the
17 invention;

18 Fig. 2 is a perspective sketch of a complete
19 single module of the scheme of Fig. 1, together
20 with parts of adjacent modules;

21 Fig. 3 is a perspective sketch of another complete
22 single module of the scheme of Fig. 1, together
23 with parts of adjacent modules;

24 Fig. 4 is a perspective sketch, from a different
25 angle, of the module of Fig. 3 and its adjacent
26 neighbourhood in the scheme;

27 Fig. 5 is a cross-section of an extrusion forming
28 the posts and beams of the space divider system;

29 Fig. 6 is a cross-section, to an enlarged scale,
30 of part of the extrusion of Fig. 5, fitted with a
31 duct closure;

32 Fig. 7 is a cross-section of the duct closure of
33 Fig. 6 showing the preferred millimetric

34 dimensions and material specifications thereof;

35 Fig. 8 is an enlarged fragmentary cross-sectional

1 view of the duct closure of Fig. 7;
2 Fig. 9 is an exploded pictorial view of the
3 coupling means for mutually coupling beam ends and
4 a post top;
5 Fig. 10 shows the parts of Fig. 9 assembled;
6 Figs. 11a and 11b show a connection between a
7 panel and post;
8 Fig. 12 is a perspective view of a panel to panel
9 connection;
10 Fig. 13 is an elevation of a multi-purpose fitting
11 for attachment of accessories to a beam;
12 Figs. 14 and 15 show fixings for corridor and cell
13 canopies respectively;
14 Fig. 16 is an elevation of a panel with a pinboard
15 attached;
16 Fig. 17 is an exploded view of a track lighting
17 attachment means; and
18 Fig. 18 illustrates a further embodiment means for
19 an accessory to the invention.

20

21 Referring first to Fig. 1, this schematically depicts
22 the plan of an office floor 10 which is to be modularly
23 divided by a space divider system in accordance with
24 the invention. The floor area 10 is generally
25 rectangular with a 3:2 aspect ratio (length:breadth
26 ratio), and is interrupted only by a rectangular
27 service core 12 containing plumbed facilities.

28

29 As depicted in Fig. 1, the floor area 10 is reticulated
30 by a notional square grid having substantially uniform
31 rectilinear internodal dimensions, ie nominally equal
32 horizontal distances in length and breadth directions
33 between intersections of the notional grid lines
34 defining the grid squares 14 (not to be confused with
35 the quite different distances between diagonally

1 opposite corners of the squares of the notional grid).
2 The notional grid is sectioned into a number of
3 sub-grids of several squares each (eg those
4 respectively denoted 14A and 14B), and separated by
5 strips 16 of about half the width of the characteristic
6 dimension of the basic squares 14 of the notional grid.
7 Some regions 18 of the floor area 10 which could be
8 divided into basic squares are not so divided, to form
9 multi-modules (detailed below).

10

11 At each corner of each basic square 14 of the notional
12 grid, there stands a vertical post 20, as schematically
13 depicted in Fig. 2. Between each pair of posts 20
14 which are adjacent along the length and breadth of the
15 notional grid (ie rectilineally adjacent, and
16 disregarding pairs of posts which are adjacent along
17 diagonals of the notional grid), a horizontal beam 22
18 is supported at each end thereof on the tops of these
19 adjacent pairs of posts 20.

20

21 The coupling means for coupling beam ends to post tops
22 is illustrated in Figs. 9 and 10. The plug-type
23 coupling means is preferably provided in a number of
24 forms each appropriate to the number of beam ends (from
25 one to four) to be attached to and supported by a
26 single post top. In the embodiment shown a
27 T-bracket 70 having a vertical and horizontal component
28 extends from the top of a post 20. Midway along the
29 horizontal component of the T-bracket 70 is a slot for
30 fixing a double bracket 71 having a corresponding slot,
31 the double bracket 71 and T-bracket 70 being fastened
32 together by a button head screw 72. End caps 73 are
33 provided at the end of each beam 22. The end caps 73
34 have a cross-section which generally corresponds to the
35 cross-section of the beams 22 and include a slot into

1 which the ends of the T-bracket 70 or double bracket 71
2 may be plugged. A means is also provided for screwing
3 the ends of the brackets into the beams 22 to ensure
4 they are securely fastened. This means comprises a
5 hilt or flange 74 positioned a small distance from the
6 end of each leg of each bracket.

7
8 The horizontal length of each beam 22 is substantially
9 equal to the rectilineal internodal distance or basic
10 dimension of the notional grid, ie the side lengths of
11 a square 14.

12
13 The uniform height of each post 20 is not less than the
14 minimum height which will keep the beams 22 above the
15 heads of people standing on the floor 10, and is
16 preferably equal to the length of the beams 22, as well
17 as being formed from the same material, to minimise the
18 number of different components in the space divider
19 system. (Details will be given below, with reference
20 to Figs. 5-8, of a structural element design enabling
21 the posts 20 and the beams 22 to be identical
22 components, and yet properly serve their respective
23 functions).

24
25 The necessity of the posts 20 being tall enough to hold
26 the beams 22 above head height and the lengths of the
27 beams having to be about the basic side length of the
28 basic squares 14, combined with the desirability of the
29 posts 20 and the beams 22 being identical (including
30 identity of length), leads to the side length of the
31 basic square 14 being of the order of 2.5 metres. This
32 allows the length of beams and posts to be about 2.4
33 metres, the remaining 0.1 metre in height and span
34 being provided by the beam/post couplings. The net
35 result is a basic space divider module 24 of cubic

1 form, as shown in Fig. 2 along with parts of adjacent
2 space divider modules. An adult-size table 26 and
3 chairs 28 are schematically depicted within the cubic
4 module 24 to demonstrate the scale. (The side length
5 of the basic square 14 may alternatively be of the
6 order of 3.0 metres, the beams and posts having a
7 length of about 2.9 metres, and the beam/post couplings
8 being as before).

9
10 As well as physically defining the outside edges of the
11 module 24, the posts 20 and beams 22 constitute a
12 modular support system for stabilising one or more
13 floor-standing planar partition panels. Fig. 2 shows
14 one such partition panel, denoted at 30. The panel 30
15 stands in a vertical position on the floor 10 at one
16 edge of the basic square 14, ie directly over and
17 aligned with one of the notional grid lines. The panel
18 30 is therefore co-planar with the posts 20 and the
19 beam 22 which will serve to stabilise that panel.

20
21 In the particular instance depicted in Fig. 2, the
22 panel 30 has a "full" height, ie the panel 30 is about
23 as high as the full height of the posts 20, but at the
24 same time, the panel 30 has a width much less than the
25 horizontal separation of the two rectilineally adjacent
26 posts 20 supporting the overlying beam 22 (about
27 one-third of the distance in the schematic example of
28 Fig. 2). Moreover, the panel 30 is located about
29 mid-way between the two adjacent posts 20. Thus the
30 panel 30 can not be directly secured to the posts 20,
31 but is directly secured to the overlying beam 22 by
32 partition panel clamps or brackets (not shown in
33 Fig. 2).

34
35 Partition panels can of course be located as desired

1 within the stabilising framework of the posts and beams
2 constituting the modular support system, and such
3 freedom of choice in panel location is one of the
4 advantages of the space divider system of the present
5 invention. For example, the panel 30 shown in Fig. 2
6 could readily be relocated to one side of its
7 illustrated position, eg to abut one of the posts 20.
8 In such position, the panel 30 would normally also be
9 clamped to that post, as well as to the beam above.
10 Clearly, when post-clamped, a panel need not also be
11 clamped to the overlying beam, and could then be of
12 less than "full" height. Also, panels can have any
13 desired width, up to a full beam length, the width of
14 the illustrated panel 30 being merely exemplary and
15 convenient for handling without special equipment.

16
17 Whatever the actual size of a partition panel, at least
18 one panel edge (the top edge or a side edge) will be
19 clamped or otherwise secured to an adjacent post or
20 beam as a minimum provision for panel stability. When
21 two or more partition panels stand alongside without
22 intervening posts, their mutually adjacent side edges
23 are preferably mutually secured to increase overall
24 support and stability.

25
26 A preferred embodiment of a connection between a post
27 20 and a panel 30 is shown in Figs. 11a and 11b. An
28 aligning means 80 in the form of a flexible extrusion
29 is positioned between the post 20 and the panel 30.
30 The aligning means 80 also provides a light seal
31 between the post and the panel. A further reinforcing
32 means may be provided in the form of a panelled strap
33 or bracket 81 as illustrated. The straps 81 may be
34 adapted for the connection of a panel to an adjacent
35 panel as shown in Fig. 12. Grooves extending along a

1 vertical edge of the panels are used to house one end
2 of the aligning means 80 or, in the case where two
3 adjacent panels require alignment, the grooves house a
4 filler strip 82. The filler strip is preferably made
5 from a plastics material and also serves for the
6 purpose of a light seal between adjacent panels.

7
8 The panel straps may also be used to fasten other
9 accessories onto the panels. Other accessories for
10 example may include pin boards as shown in Fig. 16,
11 socket arrays for telecommunications and so on and
12 these are discussed in more detail below.

13
14 The material or materials from which any given
15 partition panel is made will be selected according to
16 functional, aesthetic, and economic considerations. By
17 way of example, panel materials may comprise chipboard
18 covered with veneer or laminate or fabric, or glass, or
19 acrylic sheet, or perforated sheet metal (eg aluminium
20 or steel).

21
22 Partition panels may be functional in ways other than
23 mere area division. For example, partition panels may
24 contain service panels such as panel-mounted arrays of
25 sockets for telecommunications and/or electrical power,
26 or the partition panels may incorporate doors, eg
27 sliding doors or hinge-mounted doors or concertina
28 doors.

29
30 As an alternative to the use of partition panels as
31 area dividers, at selected locations within the space
32 divider system roller blinds, curtains, or concertina
33 doors may be directly suspended from and supported by
34 the local beam(s).

35

1 While storage units (eg shelves and cabinets) may be
2 carried on a partition panel, the limited load capacity
3 of the modular support system makes it preferable that
4 additional posts be provided at points intermediate the
5 grid nodes for the purpose of bearing the load of
6 suspended cabinets or other storage units.

7

8 The top of the module 24 is covered by a light-weight
9 canopy 32, conveniently formed of a white or
10 light-coloured fabric draped over wire stays (not
11 visible) end-mounted on the rails 22 of the module.
12 The canopy 32 serves as a diffuse down-reflector for
13 upwardly directed indirect lighting (not shown in
14 Fig. 2), conveniently provided by lighting units (not
15 shown) secured to the rails 22.

16

17 The module 24 further supports external edge canopies
18 34 also mounted on the rails 22. The lesser-width
19 strip 16 adjacent the basic square 14 of the module 24
20 is similarly capped by a canopy 36 supported on
21 semi-circular wire hoops (indirectly visible).

22

23 The canopies 32, 34 and 36 provide visual isolation of
24 the floor area 10 from the overhead regions, thus
25 obviating the necessity of a false ceiling as
26 conventionally provided for the concealment of overhead
27 services.

28

29 Fig. 2 shows only one of innumerable variants which the
30 space divider system of the invention is capable of
31 providing. A modified version of the Fig. 2
32 arrangement is schematically depicted, from a similar
33 perspective, in Fig. 3 and again in Fig. 4, but from a
34 lower perspective.

35

1 Reverting to Fig. 1, the basic cubic modules located on
2 individual ones of the squares 14 can form single
3 office room units within the floor area 10, and the
4 lesser-width strips 16 correspondingly form traversable
5 passageways or corridors between the room units, so
6 ensuring pedestrian access to all parts of the floor
7 area 10. This is particularly manifest in Fig. 4.

8
9 The regions 18 which are not fully divided into basic
10 squares can form large office room units, eg conference
11 rooms and meeting rooms, the omission of posts within a
12 given region 18 avoiding the unwanted interruption of
13 such a larger room unit by a central pillar(s). (The
14 multi-length beams that would be necessary to span the
15 multi-modular regions 18 are preferably omitted, since
16 such extra-long beams would tend to sag).

17
18 Referring now to Figs. 5-8, these give details of a
19 structural element design enabling the posts and beams
20 of the space divider system, outlined above with
21 reference to Figs. 1-4, to be formed as identical
22 components.

23
24 The structural element is an extrusion 50 having the
25 cross-section detailed in Fig. 5. The extrusion 50 is
26 preferably formed from a suitable polymeric plastics
27 material, self-coloured and having an appropriate
28 hardness, rigidity, and surface finish. (The extrusion
29 50 may alternatively be formed from any other suitable
30 material, eg an aluminium alloy).

31
32 Dealing now with the extrusion cross-section in detail,
33 it consists of a central spine 52 dimensioned to
34 provide adequate bending rigidity for use as a beam and
35 adequate columnar compression strength for use as a

1 post. The central spine 52 incorporates a rectangular
2 cavity 54 serving to accommodate similarly dimensioned
3 plug members of the post/beam couplings (not
4 illustrated). At each narrow end of the rectangular
5 cavity 54 an internally circular channel 56 is joined
6 to the cavity 54 by a respective slot 58 to provide a
7 certain resilience in the mutual separation of the
8 broad faces of the rectangular cavity 54 thereby to
9 facilitate interference plug-fitting of the post/beam
10 couplings.

11
12 In use as a beam, the extrusion 50 is preferably
13 utilised with the alignment shown in Fig. 5 for reasons
14 now to be detailed. From the lower end of the central
15 spine 52 integral wall members 60 extend laterally
16 outwards and then vertically upwards to terminate
17 laterally well outwards of the upper end of the central
18 spine 52. These wall members 60 define two cable ducts
19 62 (internally bounded by the central spine 52) forming
20 service trunking integral with the extrusion 50. When
21 in use as a beam, the lateral separations of the tops
22 of the wall members 60 from the top end of the central
23 spine 52 form open tops of the two ducts 62 allowing
24 cables and other service carriers to be readily
25 installed in the beams of the support system as a
26 secondary stage in construction of the space divider
27 system. (Preferred closures for the ducts 62 will be
28 detailed below with reference to Figs. 6-8, these
29 closures positively retaining cables and other service
30 carriers within the ducts).

31
32 Apart from the open tops of the ducts 62, the wall
33 members 60 give the extrusion 50 an overall curviform
34 square profile, and the duct closures complete this
35 profile (see Fig. 6). The resultant symmetry allows

1 posts formed from the extrusion 50 to be aligned in any
2 of four directions without variation of overall
3 transverse dimensions of the post, the duct closures
4 (Figs. 6-8) positively retaining cables and other
5 service carriers within the ducts 62 whatever the
6 alignment of the extrusion 50 (whether as a post or as
7 a beam). In use it is preferable that the duct
8 closures be used on the posts 20 while the ducts 62 be
9 left open in respect of the beams 22.

10

11 The top and bottom edges of the central spine 52, and
12 the mid-height of the wall members 60, are each
13 externally formed with re-entrant channels or slots 64.
14 These channels 64 permit the clipping-on of items such
15 as light fittings, canopy stays, and partition panel
16 top edge clamps when the extrusion 50 forms beams, and
17 conversely permit the attachment of items such as
18 service outlet units (not shown) and partition panel
19 side edge clamps when the extrusion 50 forms posts.

20

21 A preferred form of closure for the open tops of the
22 cable ducts 62 will now be described with reference to
23 Figs. 6-8.

24

25 Fig. 6 shows, to an enlarged scale, the upper end of
26 the central spine 52A of an extrusion 50A generally
27 similar to the extrusion 50 shown in Fig. 5 but
28 differing in minor detail not significant to the duct
29 closure now to be described. Only the closure of the
30 right-hand one of the pair of ducts 62 is shown in
31 Fig. 6.

32

33 The upper end of the central spine 52A is formed on
34 each side (only one being shown in Fig. 6, but see also
35 Fig. 5) with a re-entrant slot 66 into which clips the

1 relatively rigid inboard end 68 of a flexible lip
2 member 70 constituting the duct closure. The end 68 is
3 a resilient bifurcate internal clip and is separately
4 detailed in Fig. 8. Preferred millimetric
5 cross-sectional dimensions of the lip member 70 are
6 detailed in Fig. 7, together with an indication (by
7 cross-hatching) of the relatively soft and flexible
8 flap part 72 of the lip member 70.

9
10 The clip end 68 and the flap 72 are preferably formed
11 integrally, eg by co-extrusion of two materials, or by
12 localised treatment of an extrusion of a single
13 material.

14
15 The flexible lip member 70 is preferably extruded in
16 indefinite lengths in the same manner as the main
17 extrusion 50, and cut to the same standard length (eg
18 2.4 metres or 2.9 metres as previously discussed).

19
20 The flexibility of the flap 72 of the lip member 70
21 allows deformation of the flap to permit one or more
22 cables entry to or exit from the cable duct 62 at any
23 selected point or points therealong, and also allows
24 cables to be tucked into the cable ducts 62 even after
25 closure by the lip members 70. This facility enables a
26 re-distribution of services throughout the floor area
27 10, without the use of tools.

28
29 Fig. 6 demonstrates how the fully closed flap 72 of the
30 flexible lip member 70 completes the symmetrical
31 curviform square outline of the extrusion 50/50A to
32 provide an aesthetically pleasing appearance to the
33 posts and beams of the installed space divider system,
34 and to function as a protective cover for, and positive
35 retainer of, cables and other service carriers within

1 the integral trunking constituted by the cable ducts
2 integrally formed within the extrusion.

3
4 Figs. 14 and 15 show possible embodiments of an
5 attachment means for canopies 32, 36 to a beam 22. A
6 multi-purpose clamp fixing bracket 90 is adapted to be
7 inserted into the channel 64 in the wall member 60. A
8 clamp block 91, again which may be used for
9 multi-purposes is screwed or otherwise attached onto
10 the clamp fixing bracket 90. The clamp block 91 is
11 suitable for attachment of a plurality of further
12 brackets suitable for further attachment of a canopy
13 rod, light fitting or other accessory.

14
15 Another form of mounting which may be used for lighting
16 facilities, the attachment of signs or any other type
17 of accessory, may comprise a track fixing 92 held to
18 the wall members 60 by self tapping screws as shown in
19 Fig. 17. Fig. 18 illustrates a yet further attachment
20 means for, say, a hanging sign 94 including a two part
21 moulding 93 through which a wire 95 supporting the sign
22 94 or other accessory may be threaded and held by a
23 grub screw 96. The grub screw 96 would pass through a
24 loop in the end of the wire 95. This latter type of
25 fastening means is more suited to the channel 64 which
26 is located at the base of the centre spline 52.

27
28 Various other methods for the fastening or attachment
29 of accessories may be employed without departing from
30 the scope of the invention.

31
32 While exemplary embodiments of the space divider system
33 of the invention have been described above in respect
34 of an essentially uniform rectangular or (preferably)
35 square/cubic cellular divider system, the space divider

1 system of the invention may be partly or wholly
2 irregular in respect of dimensions and/or angles of the
3 modular support system, ie the notional grid may be
4 composed of rectangles of mutually different dimensions
5 in horizontal directions and/or the posts may have
6 non-uniform heights, and/or the grid may be partly or
7 wholly non-rectangular. To this end, the extrusion for
8 forming the posts and beams may be supplied in
9 indeterminate lengths to be cut to selected lengths by
10 on-site fitters, with requisite shaping of the
11 post/beam couplings to accommodate coupling angles
12 which are not right angles.

13
14 While certain modifications and variations have been
15 described above, the invention is not restricted
16 thereto, and other modifications and variations can be
17 adopted without departing from the scope of the
18 invention.

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1 Claims

2

3 1. A space divider system for modularly dividing an
4 area of floor by means of selectively placeable
5 floor-standing partition panels stabilised by a modular
6 support system, said floor area being reticulated by a
7 notional grid thereon, said support system comprising a
8 plurality of substantially vertical posts individually
9 standing on lineally adjacent nodes of said notional
10 grid, each said post having a height greater than the
11 height of a person standing on said floor, said support
12 system further comprising a plurality of beams, each
13 said beam being supported at each end thereof on the
14 respective upper ends of a lineally adjacent pair of
15 said posts, each said beam having a length
16 substantially equal to the respective internodal
17 dimension of the notional grid which that beam
18 overlies, whereby the combination of said posts
19 standing on the corners of a given area unit of said
20 notional grid together with said beams supported
21 thereby constitute a basic module of said space divider
22 system, said posts and said beams each comprising
23 service distributing means for distributing services
24 throughout said floor area at least as far as the nodes
25 of said notional grid, said posts and said beams
26 further comprising partition panel stabilising means
27 for stabilising a plurality of substantially planar
28 floor-standing partition panels standing in
29 substantially vertical positions on predetermined parts
30 of said notional grid.

31

32 2. A space divider system for modularly dividing an
33 area of solid floor by means of selectively placeable
34 floor-standing partition panels stabilised by a modular
35 support system, said floor area being reticulated by a

1 notional rectangular grid thereon, said notional grid
2 having substantially uniform rectilineal internodal
3 dimensions in respective ones of two mutually
4 substantially normal horizontal directions, said
5 support system comprising a plurality of substantially
6 vertical posts individually standing on rectilineally
7 adjacent nodes of said notional grid, each said post
8 having a substantially uniform height greater than the
9 height of a person standing on said floor, said support
10 system further comprising a plurality of substantially
11 horizontal beams, each said beam being supported at
12 each end thereof on the respective upper ends of a
13 rectilineally adjacent pair of said posts, each said
14 beam having a length substantially equal to the
15 respective internodal dimension of the notional grid
16 which that beam overlies, whereby the combination of
17 four said posts standing on the four corners of a given
18 rectangle of said notional grid together with four said
19 beams supported thereby constitute a basic module of
20 said space divider system, said posts and said beams
21 each comprising service distributing means for
22 distributing services throughout said floor area at
23 least as far as the nodes of said notional grid, said
24 posts and said beams further comprising partition panel
25 stabilising means for stabilising a plurality of
26 substantially planar floor-standing partition panels
27 standing in substantially vertical positions on
28 predetermined parts of said notional grid.

29

30 3. A space divider system as claimed in Claim 2,
31 wherein said rectilineal internodal dimensions are
32 substantially equal in each of said two mutually
33 substantially normal horizontal directions whereby said
34 notional grid is a substantially square grid.

35

1 4. A space divider system as claimed in Claim 2 or
2 Claim 3, wherein said uniform height of said posts is
3 substantially equal to said rectilineal internodal
4 dimension of said notional square grid whereby said
5 basic module is essentially cubic.

6
7 5. A space divider system as claimed in any one of
8 the preceding Claims, wherein said notional grid has a
9 said post standing on each node thereof whereby the
10 totality of said floor area is divided into basic
11 modules.

12
13 6. A space divider system as claimed in any one of
14 Claims 1 to 4, wherein one or more posts are omitted
15 from one or more selected nodes of said notional grid
16 such that said floor area is divided in such places
17 into modular multiples (for example, 2 rectangles (or
18 squares) by 1 rectangle (or square), 3 rectangles (or
19 squares) by 1 rectangle (or square), 2 rectangles (or
20 squares) by 2 rectangles (or squares), etc), wherein
21 the beam or beams otherwise overlying such places are
22 omitted to allow for the absence of the supporting post
23 or posts at said one or more selected nodes.

24
25 7. A space divider system as claimed in any one of
26 the preceding Claims, wherein the totality of said
27 floor is reticulated by a single said notional
28 rectangular or square grid thereon whereby the total
29 area of said floor may be divided into said basic
30 modules.

31
32 8. A space divider system as claimed in any one of
33 Claims 1 to 6, wherein the totality of said floor is
34 reticulated by a plurality of notional rectangular or
35 square grids thereon with each said grid having

1 substantially identical rectilinear internodal
2 dimensions in respective ones of said two mutually
3 substantially normal horizontal directions, and with
4 adjacent grids being separated by strips of a width
5 less than the respective said internodal dimension (for
6 example, of a width about half of the respective said
7 internodal dimension) whereby said basic modules can
8 form occupiable room areas in the divided floor while
9 said lesser-width strip or strips can form a
10 traversable passageway or passageways between said
11 occupiable room areas in the divided floor.
12

13 9. A space divider system as claimed in Claim 8,
14 wherein said lesser-width strips are traversed by beams
15 of appropriately lesser length than the beams defining
16 said basic modules.
17

18 10. A space divider system as claimed in any one of
19 the preceding Claims, wherein said service distributing
20 means comprised in said posts and in said beams is
21 constituted by integral trunking.
22

23 11. A space divider system as claimed in Claim 10,
24 wherein said posts and said beams are each hollow with
25 one or more end-to-end longitudinal cavities therein
26 serving as said integral trunking.
27

28 12. A space divider system as claimed in Claim 11,
29 wherein the or each said cavity in a post or beam is
30 externally accessible at any point therealong through
31 one or more flexible lips normally closing the
32 respective longitudinal cavity to serve as cover and
33 retainer but deformable to allow the entry or exit at a
34 selected point of one or more cables or other service
35 carriers.

1 13. A space divider system as claimed in any one of
2 the preceding Claims, wherein an outlet unit is
3 provided for attachment to a selected post to provide a
4 selectively placeable local termination for cables or
5 other service carriers distributed over the modularly
6 divided floor area by the service distributing means
7 comprised in the posts and beams, and a local outlet
8 for services carried thereby.

9
10 14. A space divider system as claimed in Claim 13,
11 wherein the outlet unit is vertically movable on the
12 selected post without detachment of the cable or cables
13 terminated thereby, said cable(s) having an appropriate
14 flexibility and length to permit such vertical
15 movement.

16
17 15. A space divider system as claimed in Claims 13 or
18 14, wherein the outlet unit comprises one or more
19 sockets for telecommunications and/or electrical power.

20
21 16. A space divider system as claimed in any one of
22 the preceding Claims, wherein lighting units and
23 control switches therefor are mounted on or suspended
24 from said beams and/or on said posts.

25
26 17. A space divider system as claimed in any one of
27 the preceding Claims, wherein said posts and said beams
28 have mutually identical cross-sections, and are
29 conveniently formed as cross-sectionally uniform
30 elongate extrusions of an appropriate polymeric
31 material.

32
33 18. A space divider system as claimed in Claim 17,
34 wherein the cross-sections of the posts and beams
35 incorporates a resilient central slot forming a socket

1 for a plug-type coupling means for mutually attaching
2 post tops and adjacent beam ends.

3

4 19. A space divider system as claimed in Claim 18,
5 wherein the plug-type coupling means is provided in a
6 number of forms each appropriate to the number of beam
7 ends (from one to four) to be attached to and supported
8 by a given single post top.

9

10 20. A space divider system as claimed in Claim 19,
11 wherein the plug-type coupling means (with respect to
12 its attitude when installed) comprises a single
13 vertically depending plug member at the upper end of
14 which there are from one to four horizontally extending
15 plug members mutually aligned at 90° or 180° as
16 appropriate to the local number and arrangement of
17 beams to be supported by the post into the upper end of
18 which said vertically depending plug member is plugged
19 for attachment to the respective post.

20

21 21. A space divider system as claimed in Claim 20,
22 wherein said plug members may have a substantially
23 rectangular cross-section dimensioned to fit an
24 appropriately rectangular cross-section of said central
25 slot incorporated in the cross-section of the posts and
26 beams, and to be either an interference fit therein or
27 a marginal clearance fit therein.

28

29 22. A space divider system as claimed in Claim 21,
30 wherein said plug members are each provided with a hilt
31 or flange to limit and define the insertion of the
32 respective plug member into the respective post/beam
33 socket, wherein each said hilt or flange is provided
34 with one or more screw-passing holes through which an
35 appropriate number of screw-threaded fasteners may

1 extend to be screw-threadedly secured in the respective
2 post or beam, conveniently into a respective internally
3 circular channel formed in the extrusion cross-section
4 of the posts and beams, and wherein said extrusion
5 cross-section has two said internally circular channels
6 each linked by a respective slit to the central
7 plug-member-receiving slot to provide or enhance the
8 resilience thereof.

9
10 23. A space divider system as claimed in any one of
11 the preceding Claims, wherein said partition panel
12 stabilising means comprises partition panel clamping
13 means for peripherally clamping one or more
14 floor-standing partition panels placed on a
15 predetermined part of said notional grid to stand
16 substantially co-planar with the combination of a given
17 beam and the adjacent pair of posts respectively
18 supporting either end of said beam.

19
20 24. A space divider system as claimed in Claim 23,
21 wherein said partition panel clamping means comprises a
22 plurality of brackets each insertable into and also
23 slidable along at least one re-entrant slot or channel
24 formed in the exterior of each post and beam, each said
25 bracket being constructed or adapted to be secured to a
26 respective portion of the periphery of the partition
27 panel, by means of a fastener passing through a hole in
28 the panel periphery, wherein each said bracket
29 comprises two substantially identical half-brackets
30 each of stamped sheet metal with one edge thereof
31 flanged or otherwise formed for insertion into and (in
32 operative combination with the other half-bracket)
33 anchoring in the re-entrant slot or channel in the
34 exterior of each post and beam, another edge of each
35 half-bracket being cranked or otherwise formed for

1 engaging a respective side of the panel periphery such
2 that the operative combination of the two half-brackets
3 lie on each side of the partition panel and may be
4 secured thereto by a fastener passing through a
5 respective hole in each said half-bracket.

6
7 25. A space divider system as claimed in Claim 24,
8 wherein portions of said half-brackets lying between a
9 post or a beam and the adjacent edge of a partition
10 panel are encompassed by a detachable clip, formed as a
11 unitary moulding of a resilient polymeric material.

12
13 26. A space divider system as claimed in any one of
14 the preceding Claims, wherein one or more panel foot
15 members is interposed between the bottom edge of a
16 panel and the underlying floor for vertically
17 supporting the respective panel, and wherein the or
18 each panel foot member is vertically adjustable to
19 enable selective variation of the height of the bottom
20 edge of the panel above the underlying floor.

21
22 27. A space divider system as claimed in Claim 26,
23 wherein the upper part of a panel foot member is
24 adapted to clamp the periphery of the panel and the
25 underside of the panel foot member is adapted to have a
26 high resistance to lateral movement of the floor
27 surface, for example by being of dentato-serrate or
28 dentato-costate form.

29
30 28. A space divider system as claimed in any one of
31 the preceding Claims, wherein the support system is
32 provided with beam-level beam extensions at the tops of
33 the posts which are peripheral to said notional grid,
34 said beam extensions extending horizontally to abut
35 adjacent permanent walls or other rigid structures

1 bounding the floor area whereby laterally to brace said
2 support structure at the level of the beams thereof,
3 wherein said beam extensions are coupled to the
4 adjacent post tops and beam ends by the same couplings
5 as are used mutually to couple post tops and adjacent
6 beam ends within the modular support system.

7
8 29. A space divider system as claimed in Claim 28,
9 wherein the outboard ends of said beam extensions are
10 individually provided with adjustable jacking ends
11 which are individually adjustable to provide
12 selectively variable horizontal forces along the beam
13 extensions whereby to provide controllable lateral
14 bracing of the support structure.

15
16 30. A space divider system as claimed in Claim 29,
17 wherein said adjustable jacking ends are in the form of
18 screw-adjustable face-pieces which may be plug-fitted
19 in the outboard ends of the beam extensions in a manner
20 similar to the attachment of said couplings.

21
22 31. A space divider system as claimed in any one of
23 the preceding Claims, wherein the lower ends of said
24 posts are fitted with feet members which may be
25 screw-adjustable and plug-fitted for adjustment of the
26 respective height at which the post-supported
27 beam-end(s) is held above floor level (thereby to
28 enable compensation for variations in floor level
29 and/or in post height), said feet members being
30 additionally or alternatively adapted to have a high
31 resistance to lateral movement on the underlying floor
32 surface, for example by having undersides of similar
33 dentato-serrate or dentato-costate form to the
34 undersides of the panel foot members preferred for
35 vertically supporting the floor-standing partition

1 panels (thereby to improve the lateral stability of the
2 support structure at floor level).

3

4 32. A space divider system as claimed in any one of
5 the preceding Claims also comprising a canopy support
6 means for supporting one or more canopies at the top of
7 or above the or each module or multi-module of the
8 support system.

9

10 33. A space divider system as claimed in Claim 32,
11 wherein the canopy or canopies have at least their
12 undersurfaces of an optically bright material to form a
13 distributed diffuse down-reflector for upwardly
14 directed indirect lighting.

15

16 34. A space divider system as claimed in Claim 32 or
17 33, wherein the canopy support means in the form of
18 wire hoops or stays clipped to the beams by having
19 their ends located in the same re-entrant slot(s) or
20 channel(s) as are formed in the exterior of each beam
21 (and post) for the attachment of the aforementioned
22 partition panel clamping means in the form of brackets.

23

24 35. A kit of parts for assembling a space divider
25 system in accordance with the second aspect of the
26 invention, said kit of parts comprising a plurality of
27 posts each of mutually substantially uniform length, a
28 plurality of beams each of mutually substantially
29 uniform length substantially equal to the rectilineal
30 internodal dimension of the notional grid upon which
31 the assembled space divider system is to be based, said
32 posts and said beams each comprising service
33 distributing means, said kit of parts further
34 comprising coupling means for mutually securing post
35 tops and adjacent beam ends in the assembled space

1 divider system, and partition panel stabilising means.

2

3 36. A kit as claimed in Claim 35, wherein the lengths
4 of said posts and the lengths of said beams are
5 mutually substantially equal, whereby posts and beams
6 are constituted by identical components.

7

8 37. A kit as claimed in Claims 34 or 35 further
9 comprising a plurality of substantially planar
10 partition panels.

11

12 38. A kit as claimed in any one of Claims 35 to 37
13 also including a plurality of any one or more of the
14 following components:-

15

- 16 a) panel foot members;
- 17 b) beam extensions, and optionally also
18 adjustable jacking ends therefor;
- 19 c) feet members for the posts, which feet members
20 may be adjustable;
- 21 d) canopy support means, and canopies for support
22 thereby;
- 23 e) service outlet units for mounting on the
24 posts, preferably in a vertically adjustable
25 manner, each service outlet unit preferably
26 comprising one or more sockets for
27 telecommunications and/or electrical power,
28 and optionally also isolating switches and/or
29 protective devices.

30

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